Massachusetts Department of Public Health

Health Survey Program
Bureau of Health Statistics, Research and Evaluation

A Profile of Health Among Massachusetts Adults, 2000

Results from the Behavioral Risk Factor Surveillance System

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EXECUTIVE SUMMARY

Since 1986, Massachusetts has conducted the Behavioral Risk Factor Surveillance System (BRFSS), a representative, state-wide telephone survey of Massachusetts residents ages 18 years and older. The BRFSS collects information from a sample of Massachusetts residents on a wide variety of health issues and is an important source of information about the prevalence of risk factors that contribute to premature death, illness, and disability among Massachusetts residents. The information obtained from this survey assists in identifying the need for health interventions, monitoring the effectiveness of existing programs, and developing health policy and legislation. In 2000, 8,149 interviews were conducted among Massachusetts adults ages 18 years and older. Presented below are some of the highlights from the 2000 Massachusetts BRFSS.

OVERALL HEALTH MEASURES

Overall Health Status

Nearly 14% of Massachusetts adults described their overall health as fair or poor, with more Hispanics reporting fair or poor health (30%) than any other racial/ethnic group. Nine percent of Massachusetts adults experienced 15 or more days of poor mental health during the previous month.

Quality of Life

Nearly, 8% of Massachusetts adults felt sad or depressed for 15 or more days in the past month, while 7% felt physical pain for 15 or more days in the past month. Hispanic (14%) and Black (10%) adults were more likely to report feeling depressed compared to White (7%) and Asian adults (5%).

HEALTH CARE ACCESS AND UTILIZATION

Health Care Access

Approximately 7% of Massachusetts adults (18-64 years) did not currently have health insurance and 6% had not seen the doctor in the past year due to cost. Approximately 9% of men and 5% of women did not have health insurance, while equal percentages of men and women did not see a doctor due to cost. Younger adults (18-24 years) were the most likely to not have insurance (13%) or to have not seen the doctor due to cost (10%).

Dental Health Care

Overall, 76% of Massachusetts adults reported visiting the dentist in the past year. Approximately 18% of Massachusetts adults reported having six or more teeth missing due to disease or decay. Women (78%) were more likely than men (74%) to have seen a dentist in the past year. Black adults (63%) were less likely than other race/ethnicity groups to have gone to the dentist in the past year.

RISK FACTORS AND PREVENTIVE BEHAVIORS

Tobacco Use and Smoking Cessation

Among Massachusetts adults, 20% were current smokers, while 3% reported being heavy smokers (more than 20 cigarettes per day). Young adults (ages 18-24) were more likely to be current smokers (27%) than the other age groups. Current smoking rates were similar among White, Black, and Hispanic adults and lower among Asian adults. Heavy smoking was higher among men (4%), adults with less than a high school education (6%) and adults earning less than $25,000 per year (5%). White adults (3%) were more like to be heavy smokers than adults in any other racial/ethnic group. In addition, 61% of current smokers had attempted to quit during the past year and 41% were planning to quit within the next 30 days.

Environmental Tobacco Smoke

Approximately 66% of Massachusetts adults live in households where smoking is prohibited and nearly 61% support banning smoking in restaurants. Hispanic adults were more likely than any other racial/ethnic group to prohibit smoking in their homes (79%) as well as support a ban on smoking in restaurants (77%).

Overweight and Obese

Overall, 53% of Massachusetts adults were considered to be overweight, while 17% were considered to be obese. Hispanic (61%) and Black (63%) adults were more likely than other racial/ethnic groups to be overweight. Black adults were more likely to be obese (25%) than other ethnic/racial groups.

Physical Activity

Overall, 75% of Massachusetts adults reported exercising at least once over the past month, while 31% participated in regular physical activity. White adults (33%) were more likely than any other racial/ethnic group to have exercised regularly in the past month.

Fruit and Vegetable Intake

30% of Massachusetts adults consumed five or more servings of fruits and vegetables per day, with women (36%) reporting high fruit and vegetable consumption more often than men (24%). Consumption of five or more fruits or vegetables a day increased with both increasing age and education. The percentage of adults who were obese decreased with increasing daily consumption of fruit and vegetables.

Influenza Vaccination

Among adults ages 65 and older, 66% received a flu vaccination. Hispanic adults (47%) were less likely than White (67%) adults to have received a flu vaccination.

CHRONIC HEALTH CONDITIONS

Cardiovascular Disease

Almost 4% of Massachusetts adults ages 45 and older reported having had a stroke, while almost 12% reported having heart disease. A higher percentage of Hispanic adults reported having had a stroke (6%) than either White (4%) or Black (3%) adults. Black adults (4%) were less likely to report heart disease than other racial/ethnic groups.

Respiratory Diseases

Nearly 4% of Massachusetts adults ages 45 and older reported having chronic obstructive pulmonary disease (COPD). Equal percentages of men and women (4%) reported having COPD. COPD prevalence was highest among adults ages 65-74. In addition, 9% of Massachusetts adults reported currently having asthma. Women (10%) more often reported having asthma than men (7%). Prevalence of asthma was highest among adults ages 18-24 (11%).

Arthritis

Among Massachusetts adults ages 45 and older, 45% had arthritis (50% of women and 37% of men). The percentage reporting arthritis increased with increasing age. Black adults (54%) were more likely than either White (45%) or Hispanic adults (38%) to report having arthritis.

Diabetes

Overall, 6% of Massachusetts adults reported having diabetes. The prevalence of diabetes increased with age from 1% among adults ages 18-34 years to 14% among adults ages 65 years and older.

Disability

Approximately 21% of Massachusetts adults reported a disability or limitation. Almost 6% required help with daily activities as a result of a disability. The percentage of men and women reporting a disability were similar (20% of men and 21% of women).

CANCER SCREENING

Breast Cancer Screening

Among women 40 years of age and older, 84% had a mammogram within the past two years. Eighty-six percent of all women had a clinical breast exam in the past two years. The percentage of women ages 40 and older who had mammogram in the past two years was consistent across racial/ethnic groups. Asian women (60%) were less likely than any other racial/ethnic group to have had a clinical breast exam within the past two years.

Cervical Cancer Screening

90% of Massachusetts women had a Pap smear in the past three years. Black women (96%) were more likely to have had a Pap smear in the past three years than all other racial/ethnic groups. Among women ages 18 to 24, Asian women (45%) were less likely to have had a recent Pap smear compared to White (87%), Black (91%), and Hispanic (90%) women.

Colorectal Cancer Screening

Overall, 36% of Massachusetts adults ages 50 or older reported having a blood stool test in the last two years and 39% reported having had a sigmoidoscopy or colonoscopy in the past five years. Black adults were more likely to have had a blood stool test in the past 2 years (42%) compared to White (37%) and Hispanic (27%) adults. Also Black adults were more likely to have had a sigmoidoscopy or colonoscopy in the past five years (54%) compared to White (39%) and Hispanic (30%) adults.

Prostate Cancer Screening

59% of Massachusetts men ages 50 and older reported having had a prostate specific antigen (PSA) test in the past year and 70% had a digital rectal exam (DRE) in the past year. Men ages 70-79 were more likely to have had a recent PSA test (71%) than men in the other age groups. Hispanic men were much less likely to have had a recent PSA (35%) test than White men (62%). Differences similar to those for PSA testing were found within age and racial/ethnic groups for DRE testing.

WOMEN'S HEALTH

Folic Acid Use and Awareness

Approximately 42% of Massachusetts women ages 18-44 reported daily use of folic acid. White women (45%) were more likely to report daily folic acid use than Black (35%), Hispanic (29%) or Asian (32%) women. Daily folic acid use increased with increasing consumption of fruits and vegetables.

Family Planning

Among women ages 18-44, nearly 29% reported having an unplanned pregnancy in the last five years. Approximately 78% reported using birth control. White women (81%) were more likely to use birth control than Black, (68%), Hispanic (66%) women.

Calcium Intake and Osteoporosis

Overall, 36% of Massachusetts women reported consuming sufficient calcium daily. White women (37%), were more likely to consume sufficient amounts of calcium than Black (27%), Hispanic (33%), or Asian (30%) women. Calcium consumption increased with education. Overall, 16% of women ages 45 and older had osteoporosis. The percentage of women ages 45 and older who had osteoporosis was consistent across racial/ethnic groups and levels of education.

OTHER TOPICS

HIV Testing

Overall, 15% of Massachusetts adults ages 18-64 reported having been tested for HIV within the past year and 48% reported ever being tested for HIV. Black (24%) and Hispanic (24%) adults were more likely to have been tested for HIV in the last year than White (14%) or Asian (15%) adults. Among women ages 18 to 44, pregnant women (50%) were more likely to have been tested for HIV in the past year compared to women who were not pregnant (17%).

Needle Exchange/Condom Distribution

Nearly 76% of Massachusetts adults supported providing condoms in schools and 62% supported programs allowing injection drug users to exchange used syringes and needles for clean ones. White adults (64%) were more likely than any other racial/ethnic group to support needle exchange.

Sexual Assault

Overall, 23% of women and 6% of men ages 18-59 reported having been sexually assaulted. Asian women (8%) were less likely than other racial/ethnic groups to have been sexually assaulted.

SOCIOECONOMIC STATUS AND HEALTH

Education and income are commonly used indicators of socioeconomic status (SES). Research has consistently shown that SES is related to health status, with higher levels of income and education associated with better health, more preventive behaviors, and lower numbers of risky health behaviors. The findings of this report support the established association between health and SES. Those with low SES were more likely to have poor health status, lack insurance, or not visit a doctor due to cost. Those in lower SES categories were more likely to engage in risky health behaviors (i.e. smoking, heavy smoking, being overweight). They were also less likely to participate in healthy behaviors (i.e. getting regular exercise, eating sufficient fruits and vegetables). Chronic conditions (i.e. asthma, arthritis, diabetes, disability, stroke, or heart disease) were more common among those in low SES groups. Preventive screening to identify disease (i.e. mammogram, clinical breast exam, Pap smear, sigmoidoscopy, or PSA) was less common in lower SES groups, with the exception of HIV testing. Finally, those in lower income or education categories were more likely to have been sexually assaulted.

INTRODUCTION

WHAT IS THE BRFSS?

The Behavioral Risk Factor Surveillance System (BRFSS) is a continuous, random–digit–dial, telephone survey of adults ages 18 and older, and is conducted in all states as a collaboration between the Centers for Disease Control and Prevention (CDC) and state departments of health. The survey has been in the field in Massachusetts since 1986. The BRFSS collects data on a variety of health characteristics, risk factors, and preventive behaviors. The information obtained in this survey assists in identifying the need for health interventions, monitoring the effectiveness of existing intervention and prevention programs, developing health policy and legislation, and measuring progress toward attaining state and national health objectives.

BRFSS collects data on a variety of health characteristics, risk factors for chronic conditions, and preventive behaviors.

Each year, the BRFSS includes a core set of questions that were developed by the CDC. In 2000, these questions pertained to health status, health care access and utilization, respiratory health, diabetes, tobacco use, fruit and vegetable consumption, physical activity, weight control, breast and cervical cancer screening, cardiovascular health, and HIV/AIDS. In addition to the core CDC questions, the Massachusetts BRFSS added a number of topics including disability/limitations, environmental tobacco smoke, sexual assault, folic acid, osteoporosis, chronic conditions, dental health, colorectal and prostate cancer screening, family planning, vaccinations, and support for needle exchange and condom distribution.

ABOUT THIS REPORT

This report summarizes selected results from the 2000 Massachusetts BRFSS. First, we provide a description of the survey questions and analyses used for key variables. Then overall percentage estimates of these variables are presented, along with selected comparisons by demographic and other characteristics. This section allows us to assess whether there are specific groups of adults who are at risk for chronic conditions or who are more likely to practice healthy behaviors.

Wherever possible, we compare Massachusetts results to national data and Healthy People 2010 Objectives*. For national comparisons, we provide the median* percentage and the range of estimates for all fifty states, the District of Columbia, and Puerto Rico. We also provide a ranking of Massachusetts relative to other states, although this ranking does not take into account the degree of uncertainty of the estimates within each state due to random sampling variation. Rankings are based on the lowest risk or healthiest behavior, so that a rank of 1st = best and 52nd = worst.

This report provides estimates for 2000 data, compares our state with U.S. data and Healthy People 2010 Objectives, and highlights comparisons of interest.

We also provide figures highlighting comparisons of interest. Finally, we provide a table detailing the overall estimates and estimates by demographic characteristics (gender, age, race/ethnicity, education, household income, and Massachusetts region). Crude rates, age-adjusted rates, and their 95% confidence intervals are presented in the table. The crude rate is

* See Technical Notes, page 120

the actual proportion of respondents in a particular category. Age adjustment is done in order to eliminate differences in the age distribution when comparing different geographies (for example, a community rate compared with the statewide rate) or across time (for example, Massachusetts in 1990 compared to Massachusetts in 2001). Readers may wish to use the crude rate to make general statements about the magnitude of an event, and use the age-adjusted rate when comparing different rates. Also, please note that the crude rate for a specific age group is also known as the "age-specific" rate.

Race/ethnicity categories in this report include White, Black, Hispanic, and Asian. When referring to White, Black or Asian, these categories include only non-Hispanic respondents. All respondents reporting Hispanic ethnicity are included in the Hispanic category.

BRFSS data are weighted to reflect both the probability that an individual was selected to participate in the survey and differential participation by sex, age and race/ethnicity. There may be slight differences in estimates or rankings between this report and previous publications due to different weighting methods.

A Note about the Figures in This Report

In addition to the detailed tabular data presented in this report, figures were selected to highlight important issues in each topic area. Out of the 50 figures in the report, about half highlight social and demographic variations for the particular topics presented. These include age, sex, race/ethnicity, education, and household composition. The rest of the figures focus on the relation of particular topics to certain risk factors such as smoking status, presence of diseases, insurance coverage, and disability. Statistical significance was not used as a criterion for selection of figures; confidence intervals are presented in the tables for data included in the figures that highlight demographic variations.

Figures by age, gender, race/ethnicity and education for each topic presented are also available on our web site at: http://www.state.ma.us/dph/bhsre/cdsp/brfss/brfss.htm.

DEMOGRAPHIC PROFILE OF MASSACHUSETTS BRFSS SURVEY RESPONDENTS

Demographic Characteristics of Respondents in the Massachusetts Behavioral Risk Factor Surveillance System, 2000		
	UNWEIGHTED SAMPLE SIZE* N	WEIGHTED** PERCENT (%)
OVERALL	8,149	100.0
GENDER		
MALE	3,228	47.4
FEMALE	4,921	52.6
AGE GROUP		
18–24	704	12.9
25–34	1,711	18.4
35–44	1,903	21.2
45–54	1,455	17.6
55–64	926	11.7
65–74	752	10.7
75 AND OLDER	612	7.5
RACE/ETHNICITY***		
WHITE	6,492	84.0
BLACK	456	3.7
HISPANIC	879	9.0
ASIAN	179	2.5
OTHER	70	0.8
EDUCATION		
< HIGH SCHOOL	866	9.5
HIGH SCHOOL	2,155	27.1
COLLEGE 1–3 YRS	1,965	24.4
COLLEGE 4+ YRS	3,133	39.0
HOUSEHOLD INCOME		
<$25,000	1,655	20.6
$25–34,999	876	12.3
$35–49,999	1,185	18.1
$50–74,999	1,231	20.1
$75,000+	1,672	28.9
REGION		
BOSTON	1,348	12.1
CENTRAL	1,032	12.9
METROWEST	1,469	23.0
NORTHEAST	1,496	18.8
SOUTHEAST	1,470	19.7
WESTERN	1,334	13.6

* Numbers may not total 8,149 due to missing data.
** See BRFSS Methodology in Appendix.
*** White, Black and Asian race categories refer to non-Hispanic.


Commonwealth of Massachusetts
Region 1
Region 2
Region 3
Region 4
Region 5
Region 6
EOHHS Regions
Region 1: Western
Region 2: Central
Region 3: North East
Region 4: Metro West
Region 5: South East
Region 6: Boston
Executive Office of
Health and Human Services
Regions

1. Overall Health Measures

Section 1–1: Overall Health Status

All respondents were asked to describe their overall health status as excellent, very good, good, fair or poor. Respondents were also asked on how many days during the past month their mental health was not good. The percentage of adults who reported poor mental health for 15 or more days is presented.

FAIR OR POOR HEALTH (Table 1.1b)

- 14% of Massachusetts adults described their overall health as fair or poor
- The percentage of adults who reported fair or poor health was highest among adults ages 75 and older
- The percentage of adults who reported fair or poor health decreased with increasing levels of education and income
- A lower percentage of adults in the Metrowest and Southeast regions reported fair or poor health than adults in all other regions
- Hispanics were more likely to report fair or poor health than all other racial/ethnic groups (Figure 1.1a)

15 OR MORE POOR MENTAL HEALTH DAYS IN PAST MONTH (Table 1.1b)

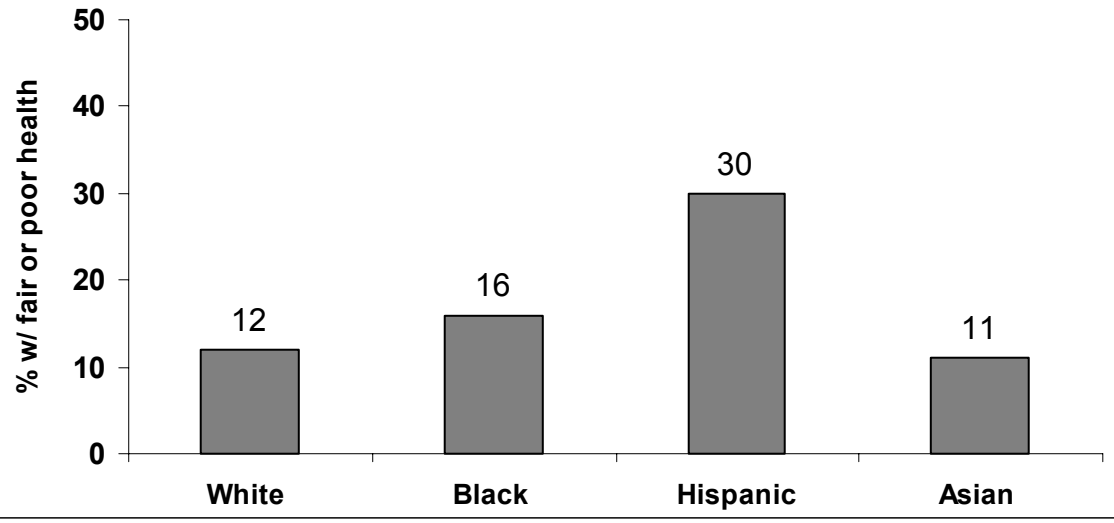
- 9% of Massachusetts adults reported experiencing 15 or more days of poor mental health in the past month
- Women were more likely than men to report 15 or more days of poor mental health in the past month
- Asians were less likely to report 15 or more days of poor mental health in the past month than all other racial/ethnic groups
- Adults with higher household income were less likely to report 15 or more days of poor mental health in the past month compared to adults in lower income households
- Adults who completed college were less likely to report 15 or more days of poor mental health than adults with lower levels of education (Figure 1.1b)

TABLE 1.1a – OVERALL HEALTH STATUS
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	FAIR OR POOR HEALTH	15+ POOR MENTAL HEALTH DAYS IN PAST MONTH
Massachusetts (%)	13.5	9.0
US Median (%)	13.9	8.8
Range of US States (%)	9.7 – 32.9	5.5 – 14.3
Massachusetts Rank	24th *	31st **
Healthy People 2010	***	***

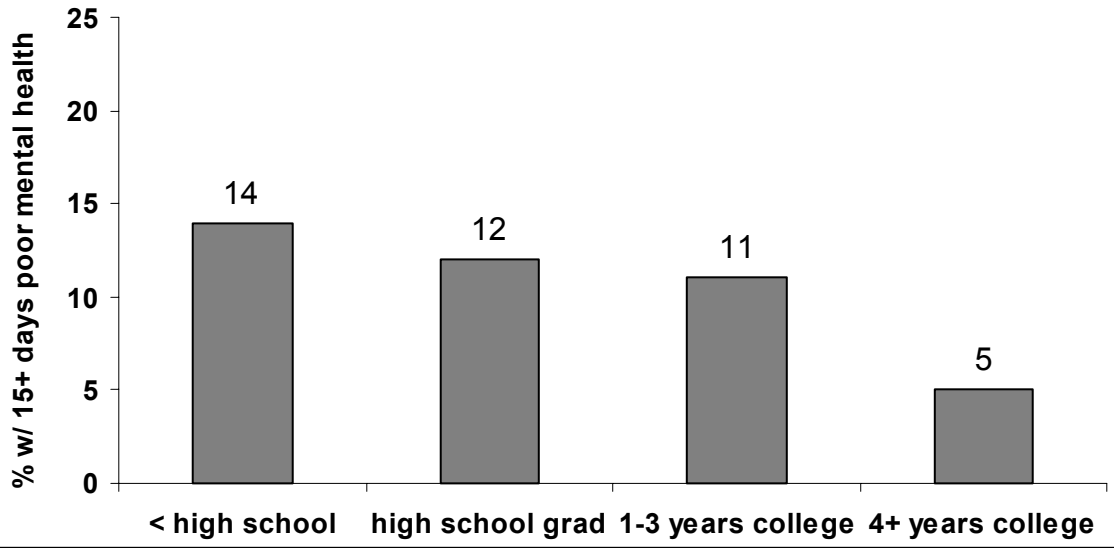
* 1st = lowest percentage of people in fair or poor health, 52nd = highest percentage of people in fair or poor health.
** 1st = lowest percentage of people with 15+ days of poor mental health days, 52nd = highest percentage of people with 15+ poor mental health days.
*** No applicable objective.

Figure 1.1a: Percentage of adults reporting fair or poor health, by race/ethnicity



Source: MA BRFSS, 2000

Figure 1.1b: Percentage of adults reporting poor mental health for 15+ days in the past month, by education



Source: MA BRFSS, 2000

Table 1.1b – Overall Health Status among Massachusetts Adults, 2000

	Fair or Poor Health			15+ Poor Mental Health Days		
	Crude %	Age–Adjusted %	95% CI	Crude %	Age–Adjusted %	95% CI
Overall	13.5	13.3	(12.4-14.1)	9.0	9.1	(8.3–9.8)
Gender						
male	13.5	13.9	(12.4-15.3)	7.9	7.9	(6.7-9.1)
female	13.4	12.8	(11.7-13.8)	10.0	10.1	(9.1-11.1)
Age Group						
18–24	9.6		(6.8–12.4) *	12.1		(9.1–15.0) *
25–34	6.1		(4.7–7.5) *	9.4		(7.8–11.0) *
35–44	7.0		(5.8–8.2) *	8.6		(7.1–10.1) *
45–54	14.7		(12.4–17.0) *	9.0		(7.1–10.8) *
55–64	20.1		(17.0–23.2) *	8.9		(6.6–11.2) *
65–74	22.2		(18.8–25.6) *	6.6		(4.7–8.6) *
75 and older	30.0		(25.8–34.2) *	7.9		(5.5–10.2) *
Race/Ethnicity **						
white	11.7	11.0	(10.1-11.9)	8.9	9.1	(8.2-9.9)
black	15.6	16.4	(11.9-20.8)	9.4	8.8	(5.6-12.0)
hispanic	30.4	36.8	(32.3-41.3)	11.8	12.9	(9.2-16.5)
asian	10.5	11.1	(4.5-17.8)	5.2	3.7	(0.9-6.6)
Education						
< high school	39.8	39.4	(35.2-43.6)	13.8	14.7	(11.4-18.1)
high school	17.6	16.2	(14.3-18.0)	11.8	12.0	(10.2-13.8)
college 1–3 yrs	10.8	10.8	(9.2-12.4)	10.6	10.5	(8.9-12.1)
college 4+ yrs	5.8	6.6	(5.4-7.8)	4.9	4.8	(3.9-5.7)
Household Income						
<$25,000	28.3	27.9	(25.1-30.7)	16.3	19.6	(16.9-22.3)
$25–34,999	13.0	12.5	(9.8-15.2)	8.0	8.4	(6.3-10.5)
$35–49,999	10.4	10.8	(8.6-13.0)	10.4	10.3	(7.9-12.7)
$50–74,999	5.7	6.4	(4.5-8.3)	6.9	6.5	(4.9-8.2)
$75,000+	4.1	4.7	(3.2-6.2)	4.4	5.3	(3.5-7.0)
Region						
I–Western	15.0	14.4	(12.2-16.6)	10.5	10.4	(8.3-12.5)
II–Central	15.0	15.1	(12.6-17.7)	9.7	10.1	(7.8-12.4)
III–North East	15.3	15.1	(12.9-17.3)	10.0	10.0	(8.2-11.9)
IV–Metro West	10.5	10.2	(8.3-12.1)	7.4	7.6	(5.9-9.2)
V–South East	12.3	11.3	(9.5-13.0)	8.5	8.8	(7.0-10.6)
VI–Boston	14.8	17.5	(14.6-20.3)	8.9	9.7	(7.3-12.0)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 1–2: Quality of Life

All respondents were asked on how many days during the last 30 days they felt sad, blue or depressed. Respondents were also asked how many days during the last 30 days pain had made it hard to do usual activities such as self-care, work or recreation. The percentage of adults who reported feeling depressed for 15 or more days in the past month and the percentage of adults who reported pain for 15 or more days in the past month are presented.

15 OR MORE DAYS DEPRESSED (Table 1.2b)

- 8% of Massachusetts adults reported feeling sad or depressed for 15 or more days in the past month
- The percentage of adults who felt sad or depressed for 15 or more days in the past month was consistent across age groups
- Black and Hispanic adults were more likely to have felt sad or depressed for 15 or more days in the past month than Asian or White adults
- The percentage of adults who felt sad or depressed for 15 or more days in the past month decreased with increasing education (Figure 1.2a) and income

15 OR MORE DAYS PAIN (Table 1.2b)

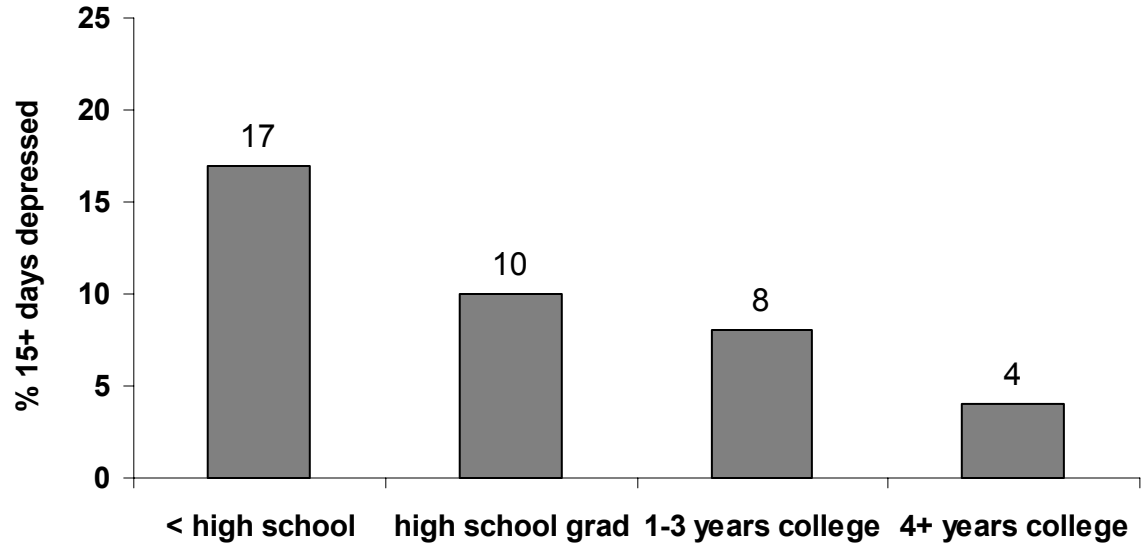
- 7% of Massachusetts adults reported pain for 15 or more days in the past month
- Asians were less likely to have experienced pain for 15 or more days in the past month than all other racial/ethnic groups
- Adults with lower levels of household income were more likely to report pain for 15 or more days in the past month compared to adults with higher household income
- Among adults with fair or poor health, individuals ages 45-64 were more likely to have experienced pain for 15 or more days in the past month compared to adults in other age groups (Figure 1.2b)

TABLE 1.2a - QUALITY OF LIFE
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	15+ DAYS DEPRESSED	15+ DAYS IN PAIN
Massachusetts (%)	7.5	6.7
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

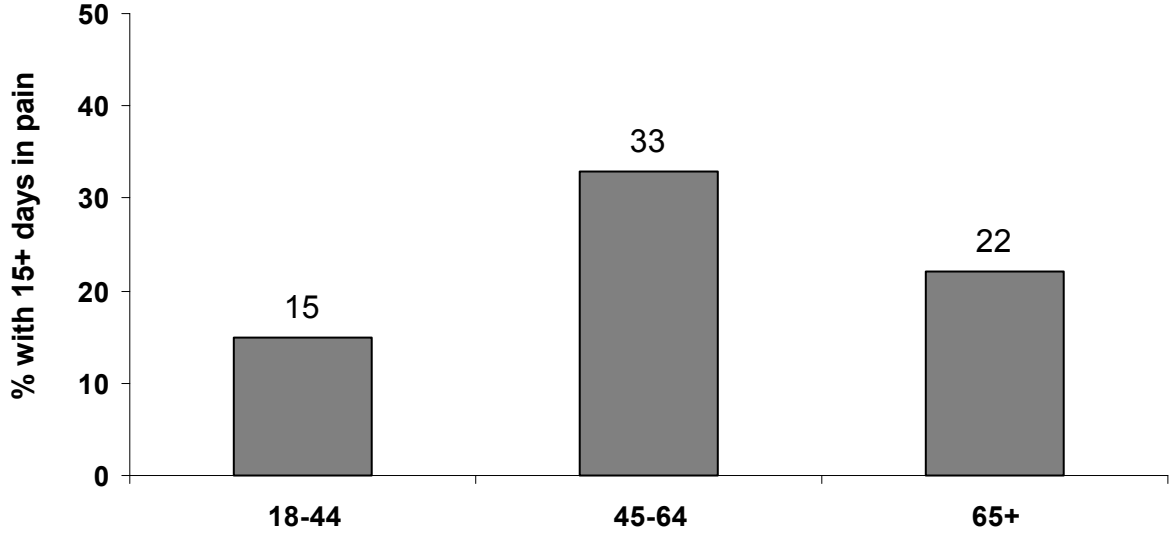
* No applicable objective.

Figure 1.2a: Percentage of adults depressed for 15+ days in past month, by education



Source: MA BRFSS, 2000

Figure 1.2b: Percentage of adults in fair/poor health who had 15+ days of pain in past month, by age



Source: MA BRFSS, 2000

Table 1.2b - Quality of Life among Massachusetts Adults, 2000

	15+ Days Depressed			15+ Days in Pain		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	7.5	7.6	(6.7–8.5)	6.7	6.7	(5.9-7.5)
Gender						
male	7.0	7.1	(5.7-8.4)	6.6	6.9	(5.6-8.1)
female	8.0	8.0	(6.9-9.2)	6.8	6.6	(5.6-7.6)
Age Group						
18–24	9.6		(5.7–13.4) *	1.1		(0.2–2.0) *
25–34	6.3		(4.7–7.9) *	4.1		(2.7–5.4) *
35–44	6.8		(5.2–8.4) *	5.2		(3.7–6.6) *
45–54	8.4		(6.3–10.6) *	9.2		(6.9–11.4) *
55–64	8.1		(5.7–10.5) *	12.2		(9.1–15.2) *
65–74	6.5		(4.0–8.9) *	8.8		(5.7–11.9) *
75 and older	8.6		(5.6–11.7) *	10.4		(6.9–14.0) *
Race/Ethnicity **						
white	6.8	6.8	(5.9-7.7)	7.2	6.9	(6.0-7.8)
black	9.8	9.7	(5.7-13.8)	8.3	8.7	(4.7-12.6)
hispanic	13.8	13.4	(8.8-18.0)	3.6	3.8	(2.2-5.4)
asian	5.2	4.8	(1.6-13.4)	0.3	0.1	(0.0-1.0)
Education						
< high school	17.0	16.6	(12.4-20.7)	12.0	11.9	(8.7-15.1)
high school	9.7	9.9	(8.0-11.8)	9.2	9.2	(7.3-11.0)
college 1–3 yrs	7.5	7.6	(6.0-9.2)	6.0	6.2	(4.7-7.7)
college 4+ yrs	3.7	3.8	(2.7-4.9)	4.2	4.4	(3.3-5.5)
Household Income						
<$25,000	15.5	17.6	(14.3-20.9)	12.6	14.4	(11.6-17.2)
$25–34,999	8.2	8.5	(5.8-11.1)	5.5	6.0	(3.7-8.4)
$35–49,999	7.1	7.2	(4.9-9.4)	8.9	9.0	(6.4-11.6)
$50–74,999	4.5	4.4	(2.7-6.2)	4.4	4.7	(2.8-6.6)
$75,000+	3.4	3.8	(1.9-5.6)	3.5	3.3	(1.9-4.6)
Region						
I–Western	10.0	9.6	(7.1-12.0)	8.4	8.4	(6.2-10.5)
II–Central	6.9	7.1	(4.8-9.4)	6.5	6.5	(4.5-8.4)
III–North East	8.7	8.8	(6.7-11.0)	6.8	6.9	(5.0-8.8)
IV–Metro West	5.8	5.9	(3.9-7.8)	5.0	4.7	(3.2-6.1)
V–South East	7.4	7.4	(5.4-9.3)	8.9	8.5	(6.5-10.6)
VI–Boston	7.4	8.0	(5.6-10.4)	4.9	5.7	(3.8-7.5)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

2. Health Care Access and Utilization

Section 2–1: Health Care Access

All respondents were asked if they currently had health insurance. Individuals who indicated they had no insurance were asked a follow-up question to make certain they considered all types of health care coverage. All respondents were also asked whether they were unable to see a doctor in the past year due to cost.

NO HEALTH INSURANCE (Table 2.1b)

- 7% of Massachusetts adults (ages 18-64) reported being currently without health insurance
- Men were more likely to have no health insurance than women
- Adults ages 18-24 were more likely to have no health insurance than adults in other age groups
- Adults who completed college were less likely to have no health insurance than adults with lower levels of education.
- Adults with lower household income were more likely to have no health insurance compared to adults with higher household income
- Men were more likely than women to have no health insurance across all racial/ethnic groups except Asian (Figure 2.1a)

DID NOT SEE DOCTOR DUE TO COST (Table 2.1b)

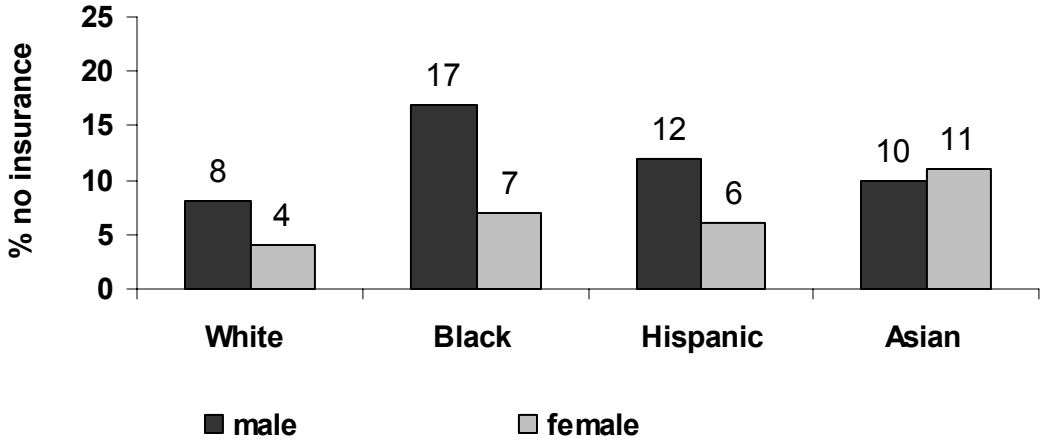
- 6% of Massachusetts adults were unable to see a doctor in the past year due to cost
- Adults ages 18-34 were more likely to have not seen a doctor in the past year due to cost than adults in other age groups
- Black adults were more likely to have not seen a doctor in the past year due to cost than all other racial/ethnic groups
- The percentage of adults who had not seen a doctor in the past year due to cost decreased with increasing income
- Men in fair or poor health were much more likely to be unable to see a doctor due to cost compared to men in excellent or good health. Women in fair or poor health were slightly more likely to be unable to see a doctor compared to women in excellent or good health (Figure 2.1b)

TABLE 2.1a – HEALTH CARE ACCESS
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	NO HEALTH INSURANCE	DID NOT SEE DOCTOR DUE TO COST
Massachusetts (%)	6.8	6.3
US Median (%)	NA	9.9
Range of US States (%)	NA	5.8 – 16.5
Massachusetts Rank	NA	4th **
Healthy People 2010	*	*

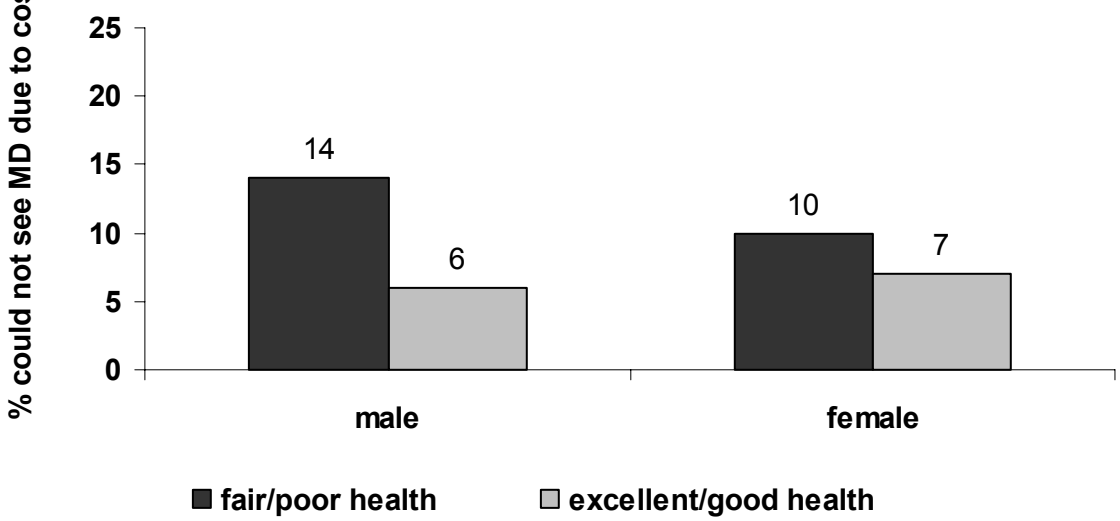
* No applicable objective.
** 1st = lowest percentage of people unable to see doctor due to cost, 52nd = highest percentage of people unable to see doctor due to cost.

Figure 2.1a: Percentage of men and women with no health insurance, by race/ethnicity



Source: MA BRFSS, 2000

Figure 2.1b: Percentage of men and women not able to see a doctor due to cost, by health status



Source: MA BRFSS, 2000

Table 2.1b – Health Care Access among Massachusetts Adults, 2000

	No Health Insurance, ages 18-64			Did Not See Doctor Due to Cost		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	6.8	6.7	(5.9-7.5)	6.3	6.3	(5.7-7.0)
Gender						
male	8.8	8.7	(7.3-10.1)	6.5	6.4	(5.4-7.4)
female	4.8	4.8	(3.9-5.7)	6.2	6.4	(5.5- 7.2)
Age Group						
18–24	12.6		(9.5-15.8) *	9.6		(7.0-12.2) *
25–34	7.1		(5.5-8.7) *	8.5		(6.9-10.1) *
35–44	5.2		(3.9-6.4) *	6.2		(4.9-7.5) *
45–54	4.6		(3.3-6.0) *	4.6		(3.4-5.8) *
55–64	5.9		(3.8-7.9) *	5.9		(4.1-7.8) *
65–74				4.4		(2.7-6.1) *
75 and older				2.7		(1.2-4.2) *
Race/Ethnicity **						
white	6.1	6.2	(5.3-7.1)	5.7	5.9	(5.2-6.6)
black	11.9	11.7	(7.6-15.8)	15.2	13.3	(9.2-17.3)
hispanic	8.8	8.3	(5.0-11.6)	7.6	6.7	(4.6-8.7)
asian	10.4	9.4	(3.0-15.9)	5.6	5.0	(1.5-8.6)
Education						
< high school	11.3	10.4	(6.7-14.2)	9.3	9.3	(6.4-12.3)
high school	8.4	8.6	(6.9-10.2)	6.5	7.0	(5.7-8.3)
college 1–3 yrs	8.0	7.3	(5.7-8.8)	7.2	6.9	(5.6-8.2)
college 4+ yrs	4.0	4.3	(3.2-5.4)	4.8	5.0	(4.0-5.9)
Household Income						
<$25,000	15.8	14.8	(12.2-17.5)	11.4	13.1	(10.9-15.3)
$25–34,999	11.4	11.6	(8.8-14.5)	9.5	10.3	(7.7-12.8)
$35–49,999	7.6	7.5	(5.2-9.8)	6.4	6.3	(4.6-8.0)
$50–74,999	4.0	4.2	(2.6-5.7)	4.7	4.3	(3.0-5.7)
$75,000+	2.4	3.5	(1.6-5.3)	2.5	2.9	(1.7-4.0)
Region						
I–Western	9.1	8.6	(6.4-10.7)	8.2	8.1	(6.2-10.1)
II–Central	6.1	6.3	(4.1-8.5)	6.1	6.3	(4.5-8.1)
III–North East	5.9	5.8	(4.2-7.5)	5.8	5.6	(4.2-6.9)
IV–Metro West	5.8	5.9	(4.1-7.6)	5.4	5.5	(4.0-6.9)
V–South East	7.1	7.5	(5.6-9.5)	6.7	7.2	(5.6-8.8)
VI–Boston	7.4	7.2	(4.7-9.6)	6.4	5.9	(4.4-7.3)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 2–2: Dental Health Care

All respondents were asked to report when they had last visited a dentist or dental clinic. All adults were also asked how many teeth they had missing due to decay or gum disease.

DENTAL VISIT IN PAST YEAR (TABLE 2.2B)

- 76% of Massachusetts adults reported that they had been to the dentist or dental clinic in the past year
- Women were more likely than men to have been to the dentist or dental clinic in the past year
- Black adults were less likely to have been to the dentist or dental clinic in the past year than other racial/ethnic groups
- The percentage of adults who had been to the dentist or dental clinic in the past year increased with increasing education and income
- Adults from the Metrowest region were more likely to have been to the dentist or dental clinic in the past year than adults from other regions
- Adults who never smoked were more likely to have been to the dentist or dental clinic in the past year compared to current smokers (Figure 2.2a)

SIX OR MORE TEETH MISSING DUE TO DISEASE (Table 2.2b)

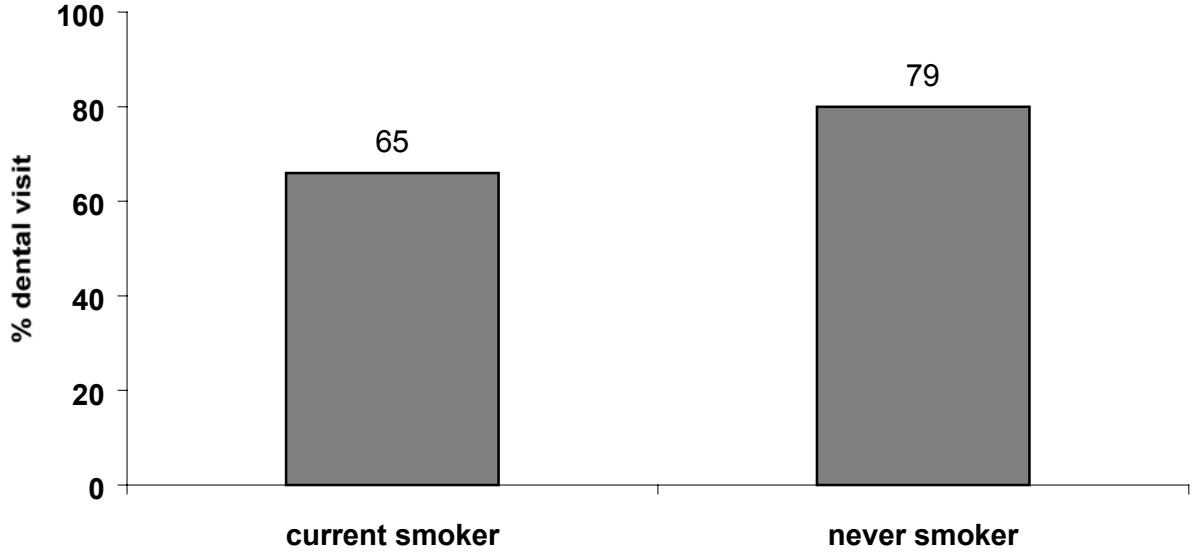
- 18% of Massachusetts adults reported having six or more teeth missing due to disease or decay
- The percentage of adults with six or more teeth missing due to disease or decay increased with increasing age
- Hispanic and Asian adults were less likely to have six or more teeth missing due to disease or decay than White and Black adults
- The percentage of adults who had six or more teeth missing due to disease or decay decreased with increasing education and income
- Adults with diabetes were more likely to have six or more teeth missing due to disease or decay compared to adults without diabetes (Figure 2.2b)

TABLE 2.2a - DENTAL HEALTH CARE
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	VISITED DENTIST OR DENTAL CLINIC IN PAST YEAR	6 OR MORE TEETH MISSING DUE TO DISEASE
Massachusetts (%)	75.7	18.4
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

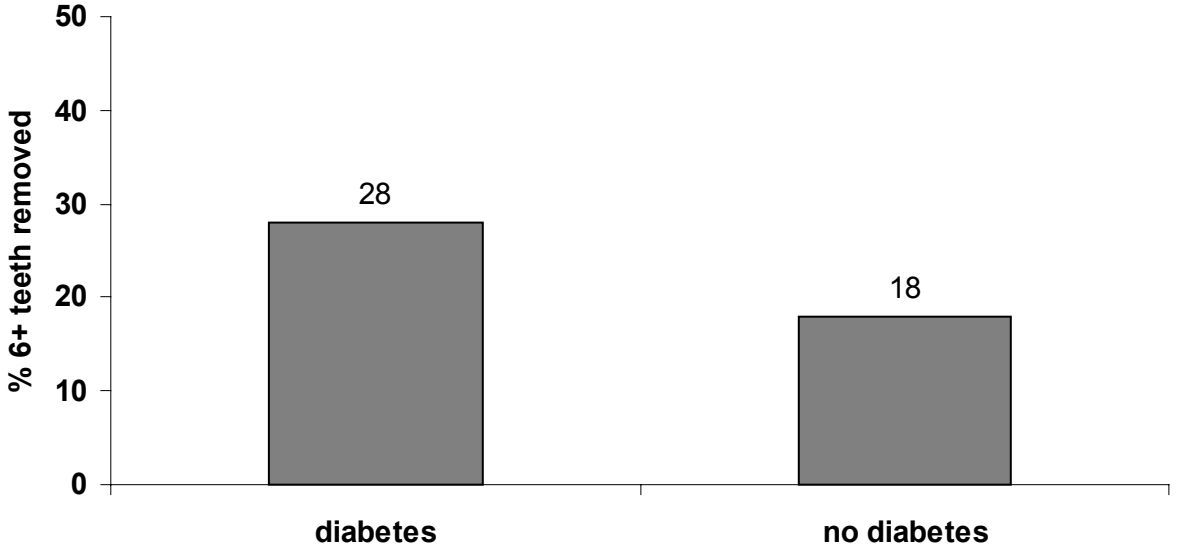
* No applicable objective.

Figure 2.2a: Percentage of adults who visited a dentist or dental clinic in the past year, by smoking status



Source: MA BRFSS, 2000

Figure 2.2b: Percentage of adults who had 6 or more teeth removed due to tooth decay or gum disease, by diabetes status (age-adjusted)



Source: MA BRFSS, 2000

Table 2.2b – Dental Health Care among Massachusetts Adults, 2000

	Dental Visit in Past Year			6 or more Teeth Missing from Disease		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	75.7	75.8	(74.3-77.3)	18.4	18.5	(17.3-19.7)
Gender						
male	73.9	73.8	(71.4-76.2)	17.3	18.7	(16.8-20.5)
female	77.5	77.9	(76.0-79.7)	19.4	18.2	(16.7-19.7)
Age Group						
18–24	74.1		(68.9-79.3) *	2.2		(0.1-4.3) *
25–34	72.5		(69.0-76.1) *	2.3		(1.1-3.5) *
35–44	80.8		(78.1-83.5) *	6.9		(5.3-8.5) *
45–54	80.8		(77.5-84.0) *	16.9		(13.8-19.9) *
55–64	76.2		(71.9-80.5) *	35.7		(30.7-40.7) *
65–74	66.7		(61.5-71.9) *	52.6		(47.1-58.1) *
75 and older	71.1		(65.4-76.9) *	53.0		(46.7-59.4) *
Race/Ethnicity **						
white	77.0	77.1	(75.5-78.8)	19.9	18.7	(17.3-20.0)
black	62.7	61.6	(53.9-69.3)	23.3	28.8	(22.1-35.5)
hispanic	71.7	70.8	(64.8-76.8)	7.5	11.8	(7.0-16.6)
asian	75.9	78.2	(67.7-88.6)	4.0	14.2	(1.1-27.4)
Education						
< high school	56.8	59.0	(53.1-65.0)	32.0	27.0	(22.6-31.3)
high school	68.6	69.0	(65.8-72.2)	28.8	25.9	(23.3-28.5)
college 1–3 yrs	78.3	78.1	(75.3-81.0)	17.0	18.4	(15.9-20.9)
college 4+ yrs	83.2	82.9	(80.7-85.2)	9.0	10.4	(8.7-12.1)
Household Income						
<$25,000	63.9	65.1	(61.2-69.0)	33.8	28.7	(25.5-31.9)
$25–34,999	67.6	67.2	(62.1-72.4)	24.8	22.1	(18.2-25.9)
$35–49,999	75.5	75.6	(71.7-79.5)	21.7	22.9	(19.3-26.4)
$50–74,999	81.2	81.7	(78.1-85.4)	12.3	15.8	(11.9-19.6)
$75,000+	85.7	84.9	(81.6-88.2)	5.2	5.6	(3.5-7.7)
Region						
I–Western	71.6	71.6	(67.5-75.7)	19.7	18.9	(15.7-22.0)
II–Central	75.9	75.1	(71.0-79.1)	22.7	23.9	(20.0-27.7)
III–North East	73.5	73.3	(69.6-76.9)	16.3	17.0	(14.4-19.7)
IV–Metro West	80.8	81.0	(77.8-84.3)	13.5	13.2	(10.8-15.5)
V–South East	76.0	75.9	(72.3-79.4)	25.1	21.8	(18.9-24.6)
VI–Boston	73.6	74.0	(70.3-77.7)	14.0	19.5	(16.2-22.7)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

3. Risk Factors and Preventive Behaviors

Section 3–1: Tobacco Use

Respondents who reported smoking 100 cigarettes in their lifetime and who currently smoked were defined as current smokers. All current smokers who reported smoking 21 or more cigarettes a day were considered to be heavy smokers.

CURRENT SMOKER (Table 3.1b)

- 20% of Massachusetts adults were current smokers
- Current smoking did not differ by gender
- Current smoking decreased with increasing age, education, and income
- Adults in the Metrowest region were less likely to be current smokers than adults in all other regions
- Current smokers were more likely to have 15 or more days of poor mental health in the past month compared to former smokers and those who never smoked (Figure 3.1a)

HEAVY SMOKER (Table 3.1b)

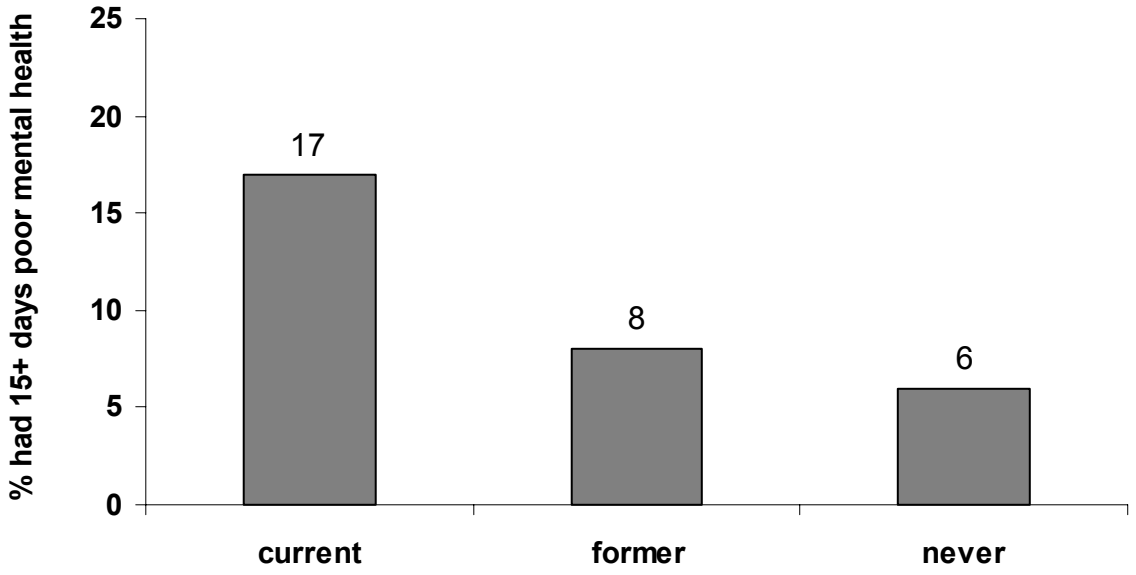
- 3% of Massachusetts adults were heavy smokers
- Men were more likely to be heavy smokers than women
- White adults were more likely to be heavy smokers than all other racial/ethnic groups (Figure 3.1b)
- Heavy smoking decreased with increasing education and income

TABLE 3.1a - TOBACCO USE
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	CURRENT SMOKER	HEAVY SMOKER
Massachusetts (%)	19.9	2.8
US Median (%)	23.2	3.1
Range of US States (%)	12.9 – 30.5	0.8 – 6.8
Massachusetts Rank	9th *	20th **
Healthy People 2010	12.0	***

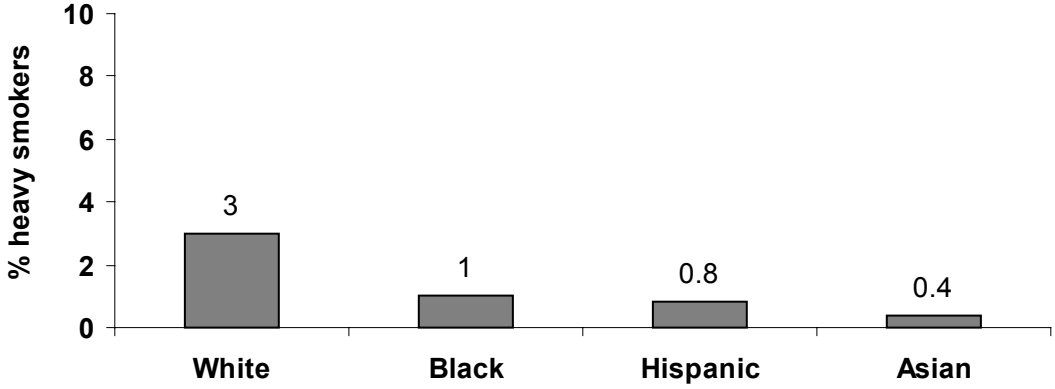
* 1st = lowest percentage of current smokers, 52nd = highest percentage of current smokers.
** 1st = lowest percentage of heavy smokers, 52nd = highest percentage of heavy smokers.
*** No applicable objective.

Figure 3.1a: Percentage of adults who reported 15+ days of poor mental health in the past month, by smoking status



Source: MA BRFSS, 2000

Figure 3.1b: Percentage of adults who are heavy smokers, by race/ethnicity



Source: MA BRFSS, 2000

Table 3.1b - Tobacco Use among Massachusetts Adults, 2000

	Current Smoker			Heavy Smoker		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	19.9	20.1	(19.1–21.2)	2.8	2.8	(2.4–3.3)
Gender						
male	20.2	19.9	(18.2–21.5)	3.7	3.7	(2.9–4.4)
female	19.7	20.3	(18.9–21.7)	2.0	2.0	(1.5–2.4)
Age Group						
18–24	27.3		(23.2–31.4) *	2.8		(1.2–4.3) *
25–34	24.0		(21.4–26.5) *	1.9		(1.2–2.7) *
35–44	22.6		(20.4–24.8) *	3.2		(2.3–4.1) *
45–54	20.6		(18.1–23.1) *	4.5		(3.1–5.9) *
55–64	17.1		(14.2–19.9) *	3.3		(1.9–4.7) *
65–74	12.3		(9.8–14.7) *	1.7		(0.7–2.6) *
75 and older	4.7		(2.9–6.6) *	0.5		(0.0–1.0) *
Race/Ethnicity **						
white	20.1	20.8	(19.6-22.0)	3.1	3.2	(2.6-3.7)
black	22.5	21.2	(16.7-25.6)	1.1	1.3	(0.2-2.3)
hispanic	19.4	18.1	(14.7-21.4)	0.8	0.9	(0.2-1.6)
asian	9.4	11.0	(4.6-17.5)	0.4	0.2	(0.0-1.5)
Education						
< high school	28.6	31.5	(27.3-35.7)	5.5	6.6	(4.2-8.9)
high school	25.8	27.5	(25.2-29.9)	4.6	4.9	(3.7-6.1)
college 1–3 yrs	22.3	22.1	(20.0-24.2)	2.3	2.4	(1.7-3.2)
college 4+ yrs	12.2	12.4	(10.9-13.9)	1.1	1.1	(0.6-1.5)
Household Income						
<$25,000	28.0	32.9	(29.9-36.0)	4.9	6.6	(4.9-8.3)
$25–34,999	23.1	25.1	(21.7-28.4)	3.4	3.7	(2.1-5.2)
$35–49,999	25.3	24.9	(21.9-27.8)	3.4	3.3	(2.1-4.5)
$50–74,999	19.1	18.1	(15.4-20.8)	2.6	2.6	(1.3-3.8)
$75,000+	13.8	13.9	(11.5-16.2)	1.6	1.5	(0.8-2.2)
Region						
I–Western	22.2	22.4	(19.6-25.1)	2.8	2.9	(1.7-4.1)
II–Central	22.0	22.7	(19.7-25.6)	3.0	3.1	(1.9-4.3)
III–North East	20.7	20.7	(18.1-23.2)	3.6	3.6	(2.5-4.6)
IV–Metro West	15.5	15.8	(13.5-18.0)	2.3	2.4	(1.4-3.4)
V–South East	21.3	22.6	(20.0-25.2)	3.2	3.3	(2.1-4.5)
VI–Boston	20.2	19.4	(16.8-22.1)	1.5	1.6	(0.9-2.3)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3–2: Smoking Cessation

All current smokers were asked if they had intentionally quit smoking for one day or longer in the past year. All current smokers were also asked if they were planning to quit smoking in the next 30 days.

QUIT ATTEMPT (Table 3.2b)

- 61% of Massachusetts current smokers reported quitting for at least one day in the past year
- Smokers ages 18 to 24 were more likely to have tried to quit in the past year than smokers in other age groups
- White smokers were less likely to have tried to quit in the past month than all other racial/ethnic groups
- The percentage of smokers who tried to quit in the past month was consistent across levels of education and income
- The percentage of smokers who tried to quit in the past month decreased with increasing cigarettes smoked per day (Figure 3.2a)

PLANNING TO QUIT (Table 3.2b)

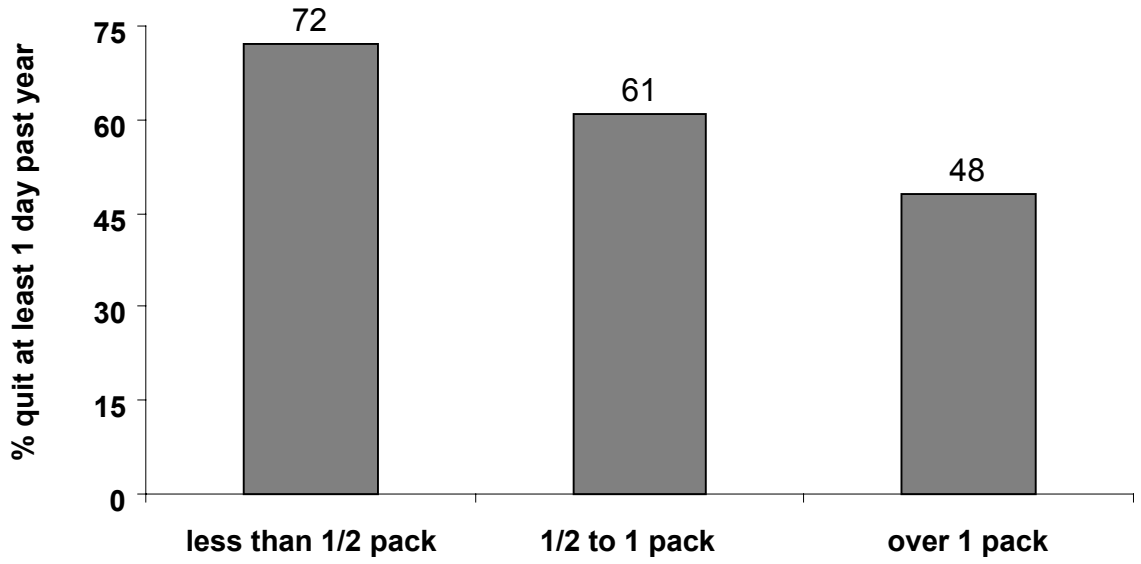
- 41% of Massachusetts current smokers were planning to quit in the next 30 days
- Men were more likely to be planning to quit in the next 30 days than women
- Hispanics were more likely to be planning to quit in the next 30 days than Whites
- The percentage of smokers planning to quit in the next 30 days was consistent across levels of education and income
- The percentage of smokers who were planning to quit in the next 30 days decreased with increasing amount of cigarettes smoked per day (Figure 3.2b)

TABLE 3.2a - SMOKING CESSATION
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	QUIT ATTEMPT PAST YEAR	PLAN TO QUIT SMOKING
Massachusetts (%)	60.5	41.0
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

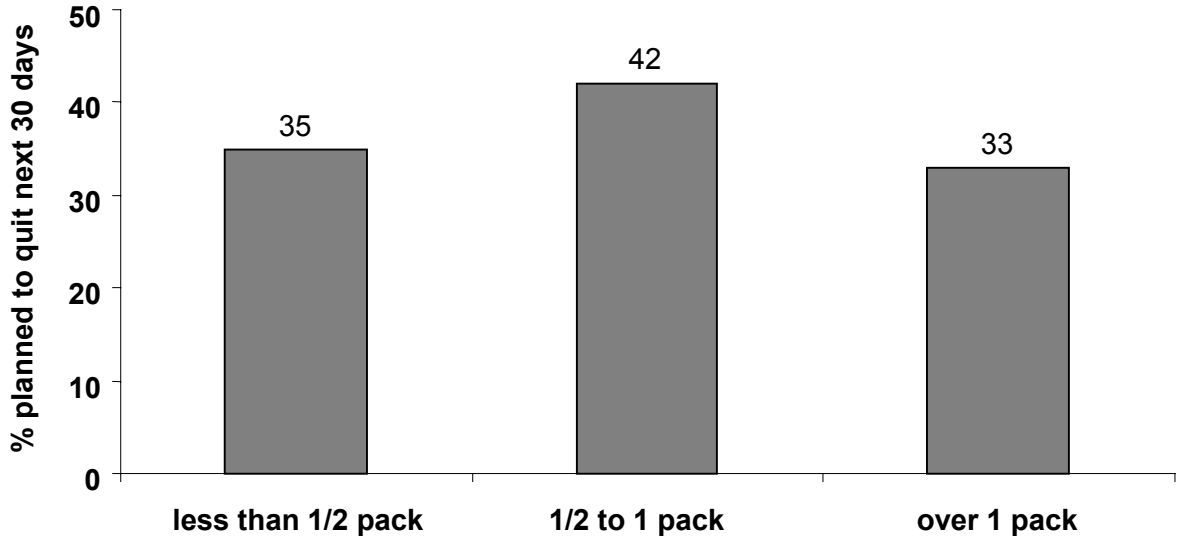
* No applicable objective.

Figure 3.2a: Percentage of current smokers who quit for at least 1 day in the past year, by amount of cigarettes smoked daily



Source: MA BRFSS, 2000

Figure 3.2b: Percentage of current smokers who planned to quit smoking in the next 30 days, by amount of cigarettes smoked daily



Source: MA BRFSS, 2000

Table 3.2b - Smoking Cessation among Massachusetts Adults, 2000

	Quit Attempt			Planning to Quit		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	60.5	59.4	(56.4–62.3)	41.0	40.4	(37.4–43.4)
Gender						
male	61.2	63.3	(58.9–67.6)	43.9	45.1	(40.2–50.0)
female	59.8	57.9	(54.2–61.6)	38.3	37.2	(33.6–40.9)
Age Group						
18–24	73.0		(65.5-80.5) *	42.2		(33.5–50.8) *
25–34	60.7		(54.7-66.7) *	42.5		(36.2–48.9) *
35–44	59.1		(53.6–64.6) *	42.4		(36.9–47.9) *
45–54	55.8		(49.0–62.6) *	42.4		(35.6–49.3) *
55–64	54.3		(45.4–63.3) *	32.5		(24.3–40.6) *
65–74	57.9		(47.2–68.5) *	39.7		(28.9–50.5) *
75 and older	†	†	--	†	†	--
Race/Ethnicity **						
white	58.4	57.5	(54.3-60.7)	39.8	39.1	(35.9-42.4)
black	75.0	74.1	(62.3-85.8)	40.3	42.6	(30.2-55.0)
hispanic	73.9	73.2	(63.8-82.6)	53.9	51.4	(40.2-62.6)
asian	†	†	--	†	†	--
Education						
< high school	61.9	59.7	(51.7-67.7)	45.7	45.0	(36.8-53.1)
high school	55.3	54.6	(49.6-59.5)	38.0	37.7	(32.8-42.7)
college 1–3 yrs	65.2	64.2	(58.4-70.0)	41.7	40.3	(34.4-46.1)
college 4+ yrs	62.2	61.6	(55.5-67.6)	41.7	40.9	(34.5-47.3)
Household Income						
<$25,000	60.9	60.0	(54.6-65.4)	35.2	35.5	(30.3-40.8)
$25–34,999	63.1	59.9	(51.9-67.8)	41.1	42.2	(33.6-50.8)
$35–49,999	61.5	64.3	(58.1-70.5)	44.2	45.1	(37.1-53.1)
$50–74,999	52.8	50.1	(39.6-60.5)	39.7	37.8	(27.4-48.1)
$75,000+	62.9	65.8	(57.1-74.4)	50.0	48.1	(39.2-57.1)
Region						
I–Western	57.2	54.0	(46.5-61.5)	40.3	38.5	(31.2-45.7)
II–Central	56.8	56.0	(48.1-63.9)	45.0	42.3	(34.9-49.7)
III–North East	61.5	59.6	(53.0-66.1)	41.8	41.5	(34.5-48.6)
IV–Metro West	57.1	57.4	(49.9-64.9)	40.4	39.0	(31.2-46.9)
V–South East	65.1	66.1	(60.0-72.1)	39.0	40.3	(33.8-46.9)
VI–Boston	64.1	62.1	(54.8-69.4)	40.0	40.4	(32.4-48.3)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

Section 3–3: Environmental Tobacco Smoke

All respondents were asked about their attitudes and behaviors relating to environmental tobacco smoke exposure. Respondents were asked to describe the rules about smoking in their home. Respondents were also asked whether they opposed smoking in a variety of public places including restaurants.

LIVE IN A HOUSEHOLD WHERE SMOKING IS NOT ALLOWED (Table 3.3b)

- 66% of Massachusetts adults reported living in a household where smoking was not allowed
- Hispanics were more likely to live in a household where smoking was not allowed than all other racial/ethnic groups
- Adults who completed college were more likely to live in a household where smoking was not allowed than adults of lower education levels
- The percentage of adults who lived in a household where smoking was not allowed increased with increasing income
- The percentage of adults who lived in a household where smoking was not allowed was higher among adults who lived with children in their households compared to those who lived in households without children (Figure 3.3a)

SUPPORT SMOKEFREE RESTAURANTS (Table 3.3b)

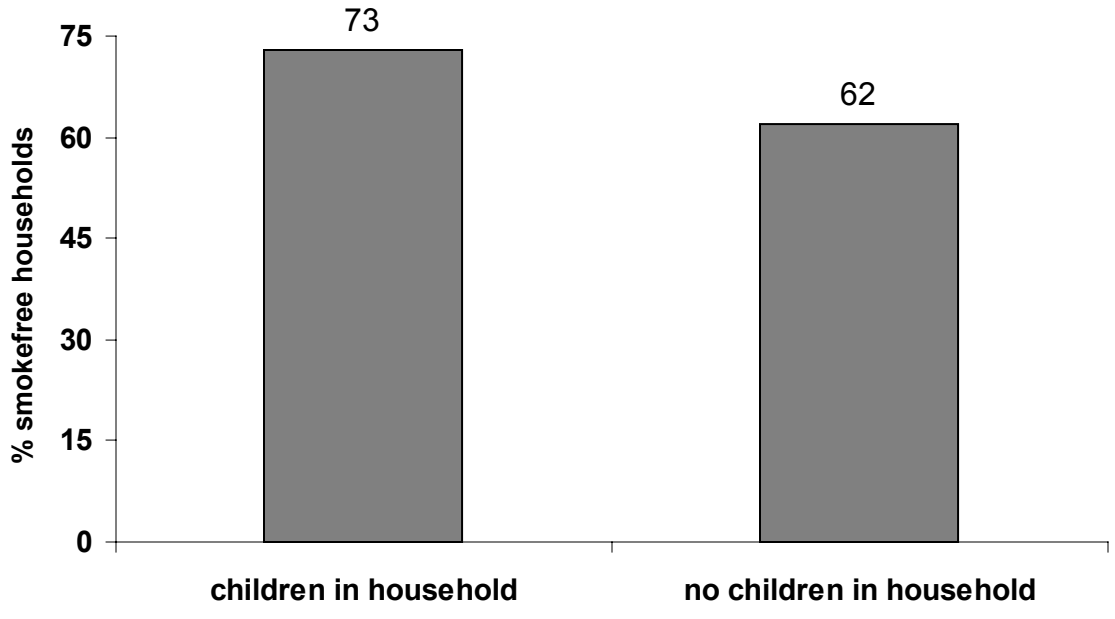
- 61% of Massachusetts adults supported smokefree restaurants
- Women were more likely to support smokefree restaurants than men
- The percentage of adults who supported smokefree restaurants was consistent across age and income
- Hispanic adults were more likely to support smokefree restaurants than all other racial/ethnic groups
- Current smokers were less likely to support smokefree restaurants compared to former smokers and those who never smoked. Those who had never smoked were more likely to support smokefree restaurants compared to former smokers (Figure 3.3b)

TABLE 3.3a - ENVIRONMENTAL TOBACCO SMOKE
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	LIVE IN HOUSEHOLD WHERE SMOKING IS NOT ALLOWED	SUPPORT SMOKEFREE RESTAURANTS
Massachusetts (%)	65.6	60.8
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

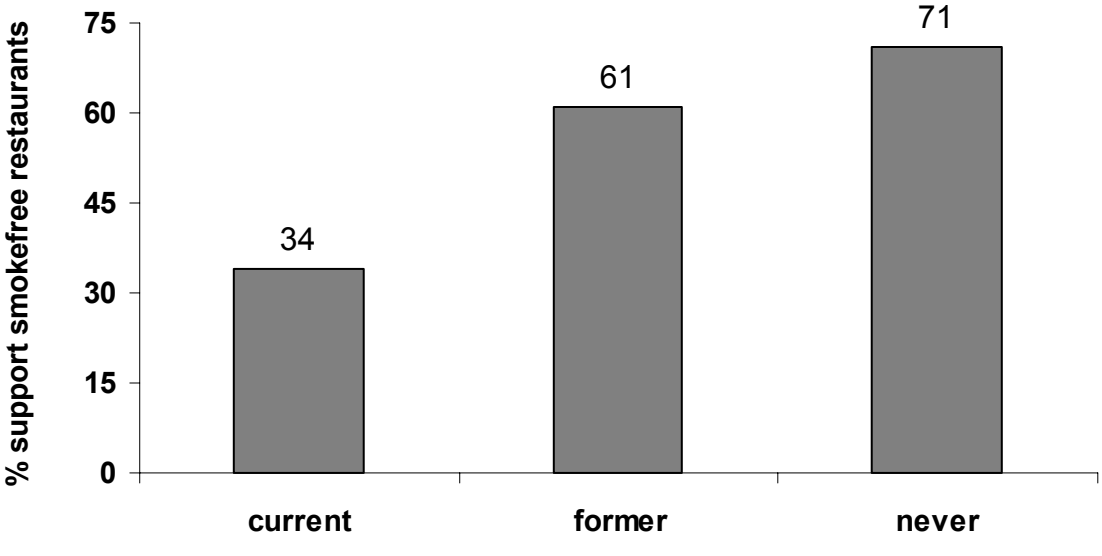
* No applicable objective.

Figure 3.3a: Percentage of smokefree households among those with and without children



Source: MA BRFSS, 2000

Figure 3.3b: Support for smokefree restaurants, by smoking status



Source: MA BRFSS, 2000

Table 3.3b - Environmental Tobacco Smoke among Massachusetts Adults, 2000

	Live in a Household Where Smoking is Not Allowed			Support Ban on Smoking in Restaurants		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	65.6	65.7	(64.4–66.9)	60.8	60.8	(59.1–62.4)
Gender						
male	65.2	65.3	(63.3–67.3)	57.9	57.7	(55.1–60.2)
female	65.9	66.0	(64.3 –67.6)	63.6	63.7	(61.7–65.8)
Age Group						
18–24	63.1		(58.6–67.5) *	57.5		(51.8–63.2) *
25–34	67.5		(64.8–70.3) *	60.6		(57.0–64.3) *
35–44	69.0		(66.5–71.4) *	62.8		(59.6–65.9) *
45–54	64.6		(61.6–67.6) *	64.9		(61.1–68.7) *
55–64	62.0		(58.2–65.7) *	59.7		(54.9–64.6) *
65–74	62.6		(58.6–66.7) *	55.9		(50.6–61.1) *
75 and older	68.6		(64.2–73.1) *	59.3		(53.6–65.0) *
Race/Ethnicity **						
white	64.0	64.0	(62.6-65.4)	59.4	59.2	(57.4-61.1)
black	64.1	64.4	(58.6-70.3)	64.3	63.0	(55.8-70.2)
hispanic	78.8	80.7	(76.8-84.6)	77.0	75.8	(70.3-81.3)
asian	74.3	68.8	(56.6-80.9)	57.0	62.7	(51.3-74.1)
Education						
< high school	63.3	63.8	(59.4-68.2)	63.9	66.5	(61.3-71.7)
high school	59.2	58.9	(56.3-61.5)	57.5	57.6	(54.3-60.9)
college 1–3 yrs	61.0	61.2	(58.6-63.8)	54.0	54.4	(51.1-57.7)
college 4+ yrs	73.2	72.7	(70.7-74.7)	66.7	66.3	(63.6-68.9)
Household Income						
<$25,000	56.5	53.8	(50.5-57.0)	54.3	53.7	(49.7-57.7)
$25–34,999	60.3	60.4	(56.6-64.3)	57.0	57.8	(52.9-62.8)
$35–49,999	61.8	61.8	(58.5-65.2)	54.1	54.2	(49.9-58.6)
$50–74,999	64.9	63.9	(60.3-67.6)	62.2	61.1	(56.4-65.7)
$75,000+	72.5	71.2	(67.9-74.4)	67.0	65.8	(61.5-70.1)
Region						
I–Western	62.0	62.5	(59.1-65.8)	63.3	63.3	(59.2-67.5)
II–Central	61.6	61.2	(57.6-64.8)	58.0	57.8	(53.3-62.3)
III–North East	64.7	64.9	(61.9-67.9)	60.1	59.7	(55.8-63.6)
IV–Metro West	69.9	69.9	(67.1-72.7)	64.2	63.8	(60.0-67.6)
V–South East	64.3	64.2	(61.3-67.2)	55.3	55.3	(51.4-59.1)
VI–Boston	69.1	68.3	(65.1-71.4)	64.5	65.0	(61.1-68.8)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3–4: Overweight and Obese

All respondents were asked to report their height and weight. Using the Body Mass Index (BMI), weight in kilograms divided by height in meters squared, we categorized all respondents based on their BMI. Using Healthy People 2010 standards (HP 2010), all adults with a BMI > 25.0 or BMI > 30.0 were considered overweight or obese, respectively. For example, a person who is 5' 6" would be considered overweight at 155 pounds and obese at 186 pounds.

OVERWEIGHT (HP2010) (Table 3.4b)

- 53% of Massachusetts adults were overweight
- Overall, men were more likely to be overweight than women
- The percentage of adults who were overweight increased with increasing age until age 74, then decreased
- Black and Hispanic adults were more likely to be overweight than White and Asian adults
- Overweight status decreased with increasing levels of education
- Compared to men who were overweight, women who were overweight were more likely to have been advised by a doctor to lose weight (Figure 3.4a)

OBESE (HP2010) (Table 3.4b)

- 17% of Massachusetts adults were obese
- Men were more likely to be obese than women
- Adults ages 18-44 and 75 and older were less likely to be obese than adults ages 45-74
- Black adults were more likely to be obese than all other racial/ethnic groups
- Asians were less likely to be obese than all other racial/ethnic groups
- The percentage of adults who were obese decreased with increasing education and income

All adults were asked to report how much they weighed ten years ago.

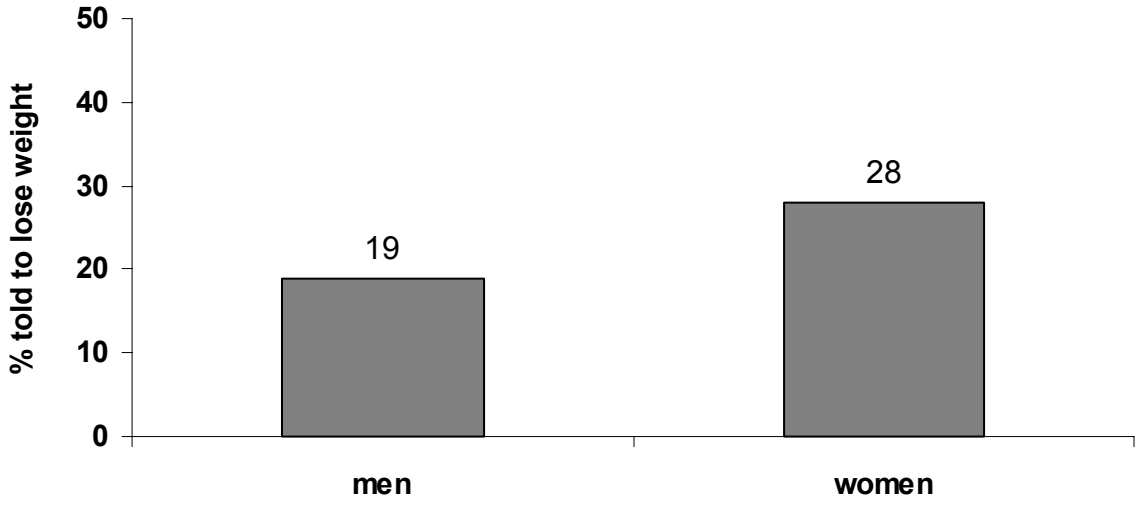
- On average, Black and Hispanic adults ages 30 and older gained more weight over a ten-year period than White and Asian adults (Figure 3.4b)

TABLE 3.4a – OVERWEIGHT AND OBESE HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	OVERWEIGHT (HP 2010)	OBESE (HP 2010)
Massachusetts (%)	52.7	16.7
US Median (%)	57.1	20.8
Range of US States (%)	48.0 – 61.7	14.4 – 25.3
Massachusetts Rank	4th *	5th **
Healthy People 2010	***	15

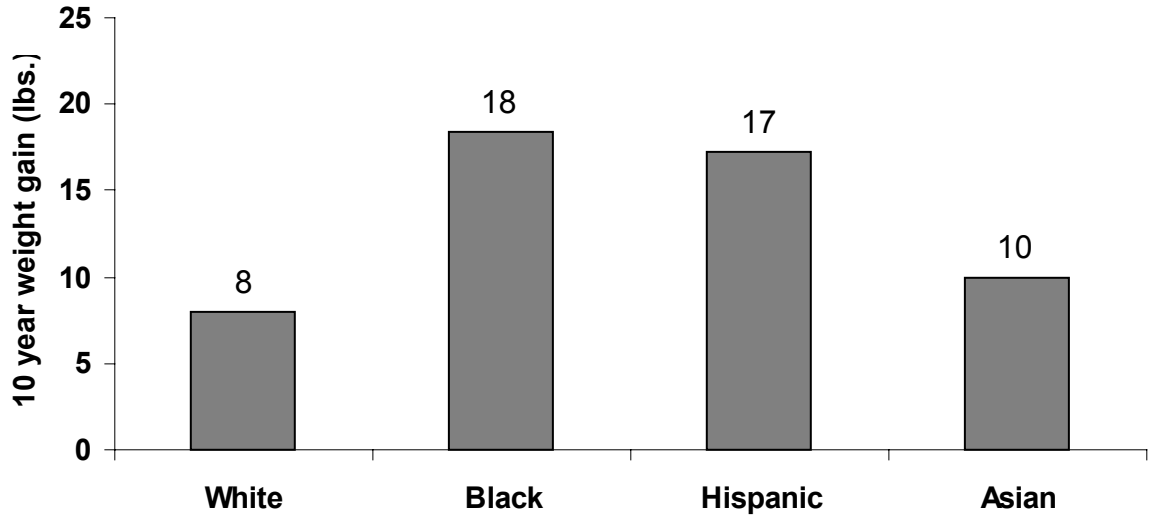
* 1st = lowest percentage of overweight adults, 52nd = highest percentage of overweight adults.
** 1st = lowest percentage of obese adults, 52nd = highest percentage of obese adults.
*** No applicable objective.

Figure 3.4a: Percentage of overweight adults who were told to lose weight by a health professional in the past year, by gender



Source: MA BRFSS, 2000

Figure 3.4b: Average 10-year weight gain among adults, ages 30 and older, by race/ethnicity



Source: MA BRFSS, 2000

Table 3.4b – Overweight and Obese among Massachusetts Adults, 2000

	Overweight (HP 2010)			Obese (HP 2010)		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	52.7	52.8	(51.5–54.2)	16.7	16.8	(15.8–17.8)
Gender						
male	64.2	64.4	(62.4–66.4)	17.9	18.0	(16.4–19.6)
female	41.7	41.5	(39.8–43.2)	15.6	15.5	(14.3–16.7)
Age Group						
18–24	34.9		(30.3–39.5) *	9.1		(6.2–12.0) *
25–34	48.1		(45.0–51.1) *	13.7		(11.4–16.0) *
35–44	53.5		(50.8–56.2) *	16.9		(14.9–18.9) *
45–54	60.7		(57.6–63.8) *	21.6		(19.0–24.2) *
55–64	61.4		(57.5–65.3) *	21.4		(18.2–24.7) *
65–74	62.1		(58.0–66.1) *	21.4		(17.9–24.9) *
75 and older	47.7		(43.0–52.4) *	12.1		(9.0–15.2) *
Race/Ethnicity **						
white	52.1	51.6	(50.1-53.1)	16.6	16.4	(15.3-17.5)
black	62.7	65.1	(59.5-70.7)	25.4	26.8	(21.5-32.2)
hispanic	61.3	63.9	(59.0-68.8)	18.3	19.4	(15.2-23.7)
asian	31.2	42.7	(34.1-51.3)	4.2	3.5	(1.2-9.8)
Education						
< high school	59.8	61.0	(56.4-65.5)	23.4	23.7	(19.9-27.5)
high school	57.6	57.7	(55.0-60.4)	19.8	19.8	(17.5-22.0)
college 1–3 yrs	51.7	53.7	(51.0-56.3)	16.9	17.8	(15.8-19.8)
college 4+ yrs	48.1	47.7	(45.5-49.9)	13.0	12.7	(11.2-14.1)
Household Income						
<$25,000	52.2	54.1	(50.8-57.4)	19.7	21.2	(18.5-23.9)
$25–34,999	57.6	58.1	(54.2-62.1)	19.6	19.6	(16.3-22.9)
$35–49,999	54.6	55.0	(51.5-58.4)	15.9	16.0	(13.6-18.5)
$50–74,999	53.1	52.5	(48.7-56.3)	15.8	15.0	(12.5-17.4)
$75,000+	49.6	48.1	(44.8-51.4)	14.2	13.3	(11.0-15.6)
Region						
I–Western	53.8	54.2	(50.7-57.6)	17.3	17.3	(14.7-19.9)
II–Central	55.5	54.7	(51.0-58.4)	19.5	19.0	(16.0-22.0)
III–North East	53.3	53.4	(50.3-56.5)	17.6	17.6	(15.2-19.9)
IV–Metro West	49.9	50.3	(47.1-53.4)	13.9	14.1	(11.8-16.3)
V–South East	56.2	55.3	(52.4-58.3)	18.6	18.2	(15.8-20.6)
VI–Boston	46.9	50.1	(46.7-53.6)	14.4	16.4	(13.9-18.9)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3–5: Physical Activity

All respondents were asked if they participated in any leisure time physical activity in the previous month. Adults who participated in 30 minutes of exercise (of any intensity) 5 days per week or 20 minutes of vigorous activity 3 days per week were classified as engaging in regular physical activity.

ANY EXERCISE PAST MONTH (Table 3.5b)

- 75% of Massachusetts adults reported any exercise in the past month
- Hispanics were less likely to have exercised in the past month than all other racial/ethnic groups
- The percentage of adults who exercised at least once in the past month increased with increasing education and income levels
- The percentage of adults who exercised at least once in the past month was lowest among those who reported their health as fair or poor and highest among those who reported their health as excellent or very good (Figure 3.5a)

REGULAR EXERCISE PAST MONTH (Table 3.5b)

- 31% of Massachusetts adults reported exercising regularly in the past month
- Similar percentages of men and women exercised regularly in the past month
- White adults were more likely to have regularly exercised in the past month than all other race/ethnicities
- The percentage of adults who exercised regularly in the past month increased with increasing income
- The percentage of adults who exercised regularly in the past month increased with increasing education (Figure 3.5b)

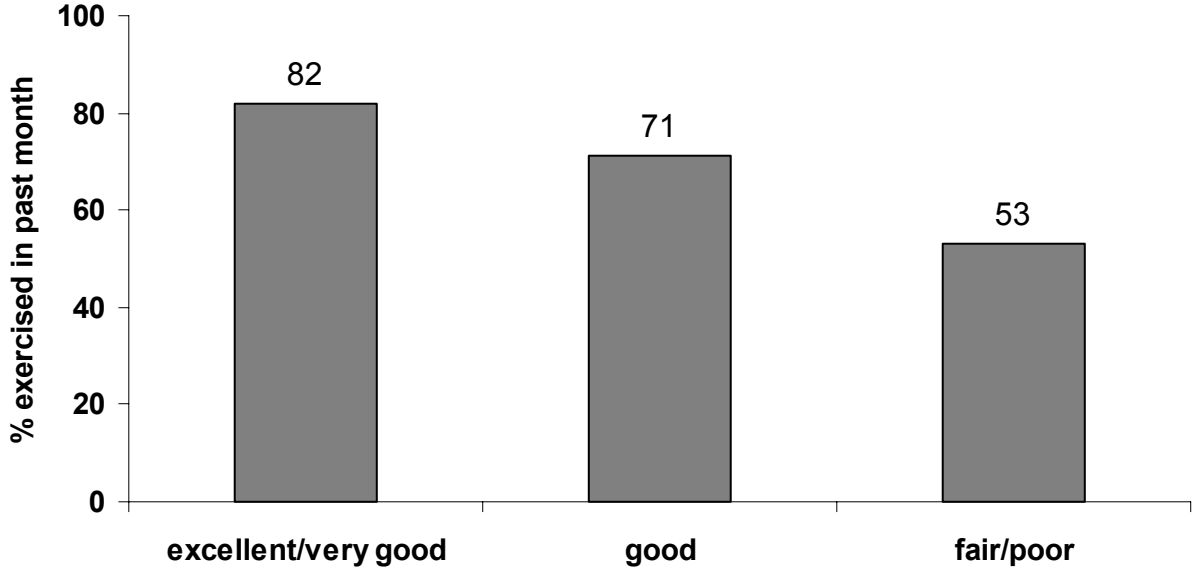
TABLE 3.5a - PHYSICAL ACTIVITY
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	ANY EXERCISE PAST MONTH	REGULAR EXERCISE PAST MONTH
Massachusetts (%)	75.4	70.0
US Median (%)	73.1	NA
Range of US States (%)	45.9 – 84.5	NA
Massachusetts Rank	18th *	NA
Healthy People 2010	**	**

* 1st = highest percentage of adults who exercised in the past month, 52nd = lowest percentage of adults who exercised in the past month.

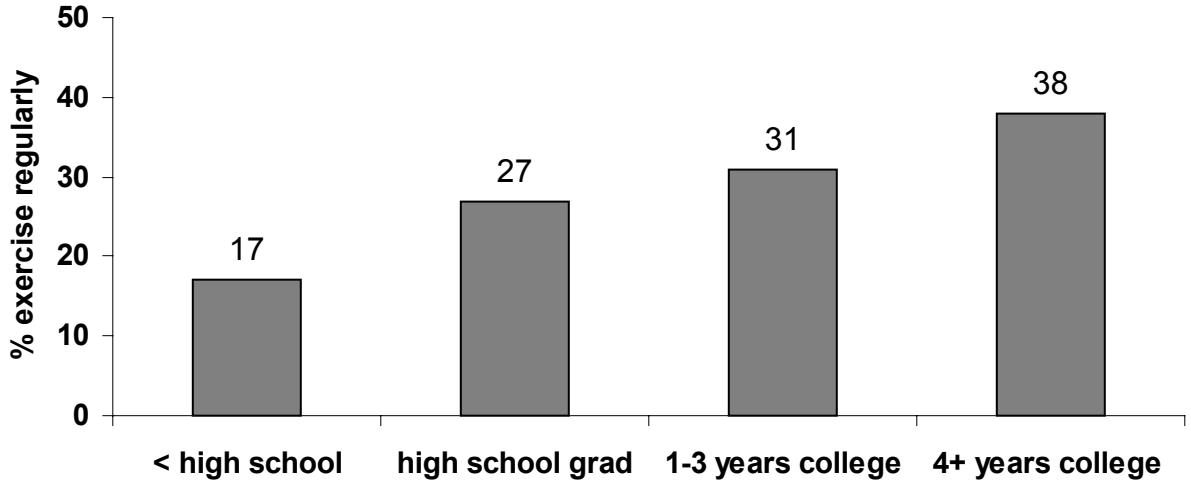
** No applicable objective.

Figure 3.5a: Percentage of adults who exercised in the past month, by overall health status



Source: MA BRFSS, 2000

Figure 3.5b: Percentage of adults who exercise regularly, by education



Source: MA BRFSS, 2000

Table 3.5b - Exercise among Massachusetts Adults, 2000

	Any Exercise in Past Month			Regular Physical Activity		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	75.4	75.5	(74.3–76.6)	31.0	31.0	(29.7–32.2)
Gender						
male	77.0	76.8	(75.0–78.5)	31.4	31.5	(29.6–33.5)
female	74.0	74.5	(73.1–76.0)	30.6	30.8	(29.2–32.3)
Age Group						
18–24	80.1		(76.4–83.8) *	32.9		(28.6–37.3) *
25–34	77.1		(74.6–79.7) *	28.8		(26.2–31.4) *
35–44	78.2		(76.0–80.3) *	28.7		(26.4–31.1) *
45–54	76.4		(73.7–79.0) *	32.1		(29.2–35.0) *
55–64	73.4		(70.0–76.8) *	34.3		(30.7–38.0) *
65–74	71.6		(68.0–75.2) *	35.9		(31.8–39.9) *
75 and older	60.9		(56.4–65.3) *	24.3		(20.4–28.3) *
Race/Ethnicity **						
white	77.7	78.3	(77.1-79.4)	32.6	32.7	(31.3-34.1)
black	69.5	68.1	(62.5-73.7)	25.2	24.5	(19.3-29.6)
hispanic	58.0	59.1	(54.5-63.7)	21.5	23.1	(18.6-27.5)
asian	76.2	76.6	(67.4-85.9)	22.6	18.6	(11.1-26.0)
Education						
< high school	51.2	50.8	(46.3-55.3)	17.4	17.2	(13.7-20.8)
high school	68.0	68.2	(65.7-70.6)	26.9	26.5	(24.2-28.8)
college 1–3 yrs	77.4	77.0	(74.8-79.2)	30.6	30.3	(27.9-32.8)
college 4+ yrs	85.3	85.1	(83.7-86.6)	37.5	38.2	(36.0-40.4)
Household Income						
<$25,000	64.7	63.8	(60.7-66.9)	24.9	24.5	(21.8-27.2)
$25–34,999	71.3	71.3	(67.6-75.0)	30.4	29.5	(25.8-33.2)
$35–49,999	78.2	78.1	(75.2-80.9)	31.4	31.3	(28.1-34.6)
$50–74,999	80.8	80.1	(77.1-83.2)	32.2	34.2	(30.7-37.8)
$75,000+	86.8	87.1	(85.0-89.3)	38.8	40.7	(37.3-44.1)
Region						
I–Western	73.8	73.9	(71.0-76.8)	27.7	27.5	(24.4-30.6)
II–Central	74.1	74.3	(71.1-77.6)	27.5	28.0	(24.7-31.3)
III–North East	73.0	73.0	(70.2-75.8)	31.8	31.9	(29.0-34.8)
IV–Metro West	79.7	79.9	(77.5-82.3)	32.8	32.8	(29.9-35.6)
V–South East	76.2	77.0	(74.6-79.4)	32.5	32.0	(29.1-34.8)
VI–Boston	72.8	70.7	(67.6-73.9)	31.1	30.4	(27.3-33.4)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3–6: Fruit and Vegetable Intake

All respondents were asked about their fruit and vegetable consumption. Sufficient fruits and vegetables were defined as five or more servings per day, which meets the recommended daily allowance (RDA) standards.

FIVE OR MORE SERVINGS FRUIT AND VEGETABLES PER DAY (Table 3.6b)

- 30% of Massachusetts adults reported consuming five or more servings of fruit and vegetables per day
- Women were more likely than men to consume five or more servings of fruit and vegetables per day
- The percentage of adults who consumed five or more servings of fruit and vegetables increased with increasing age and education
- Adults who exercised regularly were more likely to consume five or more servings of fruit and vegetables per day compared to adults who did not excerise (Figure 3.6a)
- The percentage of adults who were obese decreased with increasing daily servings of fruit and vegetables (Figure 3.6b)

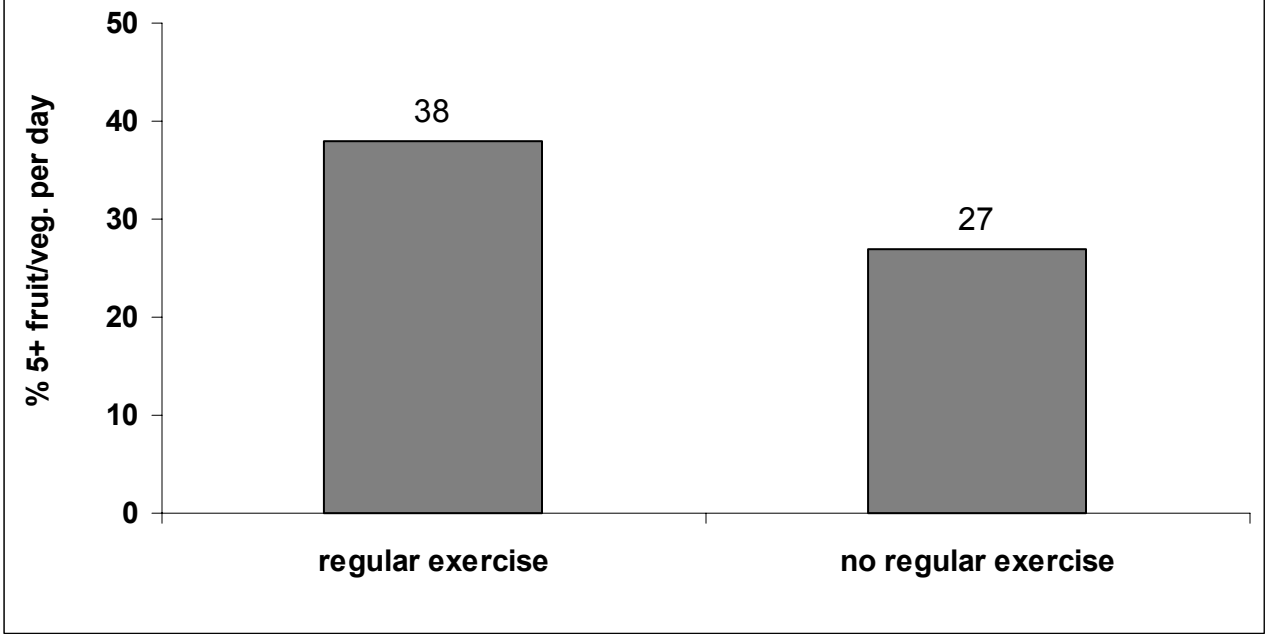
TABLE 3.6a - FRUIT AND VEGETABLE INTAKE
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	5+ SERVINGS OF FRUITS AND VEGETABLES PER DAY
Massachusetts (%)	30
US Median (%)	23.1
Range of US States (%)	7.3 – 36.7
Massachusetts Rank	4th *
Healthy People 2010	**

* 1st = highest percentage of adults who ate 5 or more servings of fruits and vegetables per day, 52nd = lowest percentage of adults who ate 5 or more servings of fruits and vegetables per day.

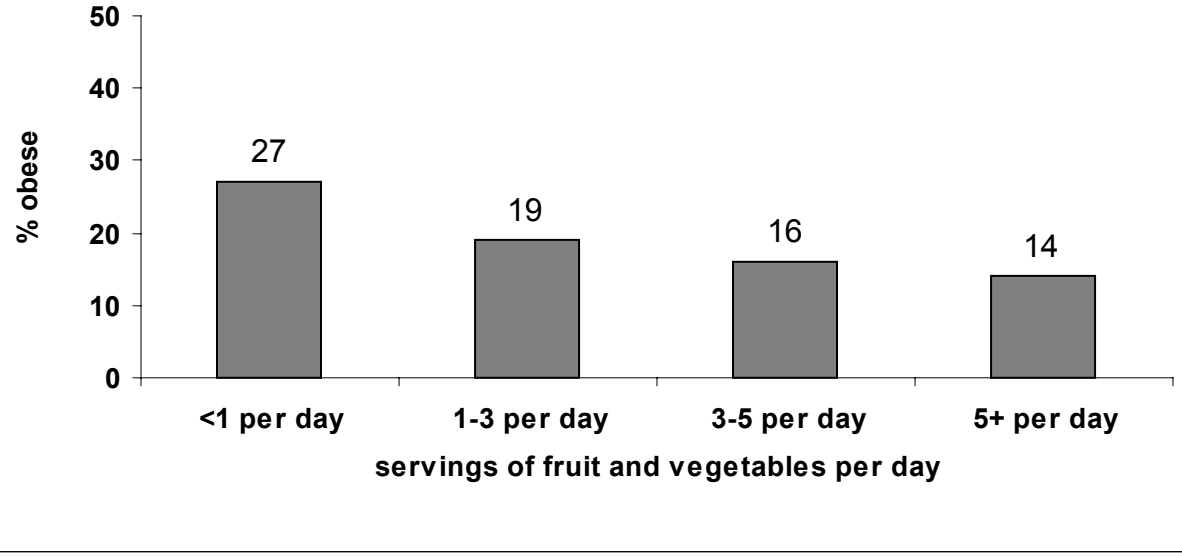
** No applicable objective.

Figure 3.6a: Percentage of adults who consume 5+ servings of fruit and vegetables per day, by exercise status



Source: MA BRFSS, 2000

Figure 3.6b: Percentage of adults who are obese, by daily fruit and vegetable consumption



Source: MA BRFSS, 2000

Table 3.6b - Fruit and Vegetable Consumption among Massachusetts Adults, 2000

	5+ Servings Fruit and Vegetables per day		
	Crude	Age–Adjusted	
	%	%	95% CI
Overall	30.0	29.8	(28.6–31.0)
Gender			
male	23.9	24.0	(22.2–25.8)
female	35.5	35.0	(33.4–36.7)
Age Group			
18–24	25.5		(21.5–29.5) *
25–34	26.7		(24.0–29.3) *
35–44	27.0		(24.6–29.3) *
45–54	30.1		(27.3–33.0) *
55–64	32.2		(28.6–35.8) *
65–74	36.3		(32.3–40.3) *
75 and older	40.6		(36.0–45.1) *
Race/Ethnicity **			
white	30.4	30.0	(28.6-31.3)
black	27.9	25.7	(20.8-30.5)
hispanic	26.5	27.3	(22.6-32.0)
asian	27.3	37.6	(27.9-47.2)
Education			
< high school	23.1	23.6	(19.7-27.6)
high school	26.9	25.8	(23.4-28.2)
college 1–3 yrs	31.4	31.2	(28.8-33.6)
college 4+ yrs	33.0	33.2	(31.1-35.3)
Household Income			
<$25,000	28.9	27.1	(24.2-30.0)
$25–34,999	32.1	31.0	(27.2-34.7)
$35–49,999	29.0	29.2	(26.1-32.3)
$50–74,999	28.8	29.5	(26.0-33.0)
$75,000+	31.0	32.6	(29.4-35.8)
Region			
I–Western	29.6	29.4	(26.2-32.7)
II–Central	30.3	30.1	(26.8-33.4)
III–North East	27.8	27.6	(24.8-30.4)
IV–Metro West	33.5	33.1	(30.3-36.0)
V–South East	28.7	27.9	(25.2-30.6)
VI–Boston	28.9	30.4	(27.3-33.6)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 3–7: Influenza Vaccination

All respondents ages 65 and older, all individuals ages 18 to 64 with diabetes or asthma, and all individuals ages 40 to 64 with heart disease, stroke, or emphysema/COPD were asked whether they had received an influenza ("flu") vaccination in the past 12 months. The percentage of adults ages 40-64 with a chronic disease (i.e. heart disease, stroke, emphysema/COPD, diabetes, or asthma) who had a flu vaccination in the last year is presented. The percentage of all adults ages 65 and older who had a flu vaccination is also presented.

FLU VACCINATION IN THE PAST YEAR , ADULTS AGES 40-64 WITH A CHRONIC DISEASE (Table 3.7b)

- 47% of Massachusetts adults ages 40-64 with a chronic disease reported having a flu vaccination in the past year
- Adults ages 55 to 64 with a chronic disease were more likely to have had a flu shot in the past year than adults ages 40 to 54
- There were no differences by gender or race in the percentage of adults ages 40 to 64 with a chronic disease who had a flu shot in the past year
- The percentage of adults ages 40-64 with a chronic disease who had a flu vaccination in the past year was consistent across levels of education and income
- The percentage of adults ages 18 to 64 with a chronic disease who had a flu shot in the past year ranged from 36% for adults with asthma to 62% for adults with COPD (Figure 3.7a)

FLU VACCINATION IN THE PAST YEAR, ADULTS AGES 65 AND OLDER (Table 3.7b)

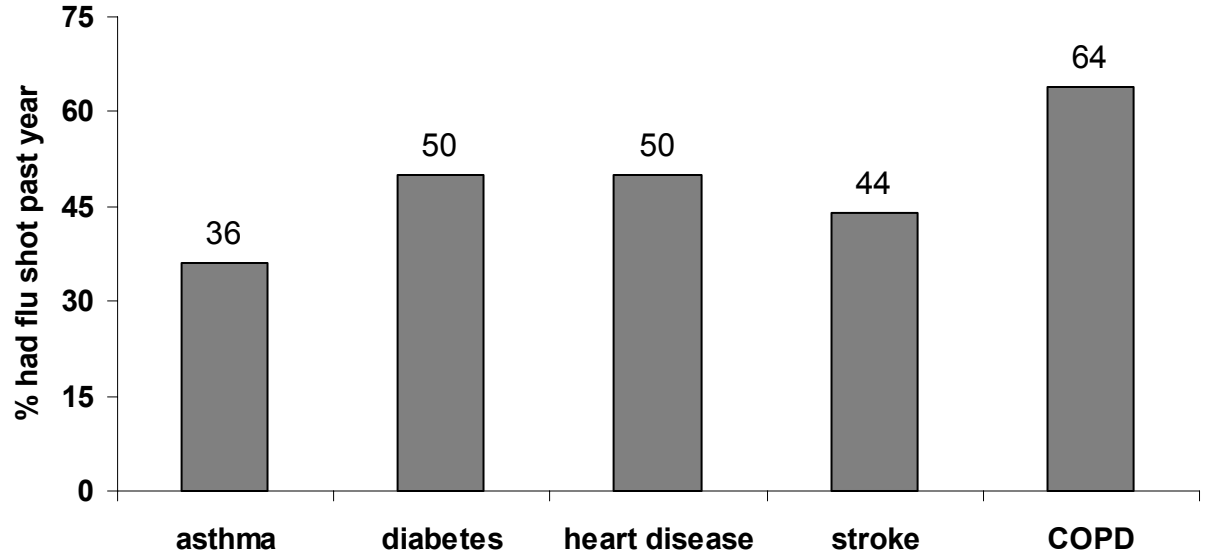
- 66% of Massachusetts adults ages 65 and older reported having a flu vaccination in the past year
- Adults with a high school education or less were less likely to have had a flu shot in the past year than those with any college education
- A higher percentage of men ages 75 and older had a flu shot in the past year compared with women ages 75 and older (Figure 3.7b)

TABLE 3.7a - INFLUENZA VACCINATION
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	FLU VACCINATION IN PAST YEAR (AGES 40-64 WITH A CHRONIC DISEASE*)	FLU VACCINATION IN PAST YEAR (AGES 65+)
Massachusetts (%)	46.9	65.5
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	90.0	90.0

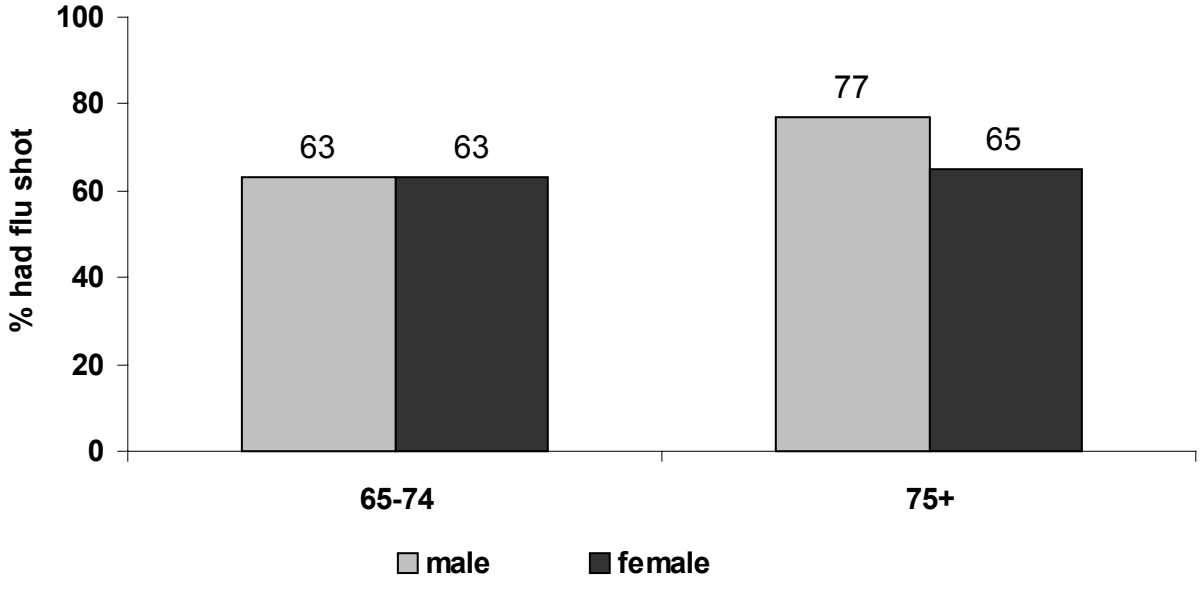
* Diabetes, asthma, heart disease, stroke, emphysema/COPD

Figure 3.7a: Percentage of adults, ages 18 to 64, who had a flu shot in the past year, by chronic disease



Source: MA BRFSS, 2000

Figure 3.7b: Percentage of adults ages 65 and older who had a flu shot in the past year, by gender



Source: MA BRFSS, 2000

Table 3.7b - Flu Vaccinations Among Massachusetts Adults, 2000

	Flu Vaccination in the last year Among Those with Chronic Disease (age 40–64) Crude		Flu vaccination in the last yr among those 65+ Crude	
	%	95% CI	%	95% CI
Overall	46.9	(42.3 – 51.4)	65.5	(62.5–68.5)
Gender				
male	45.2	(38.5 – 52.0)	67.9	(63.0–72.8)
female	48.6	(42.6 – 54.6)	63.9	(60.2–67.6)
Age Group				
40–54	41.2	(35.5 – 46.9)		
55–64	55.6	(48.4 – 62.8)		
65–74			62.9	(58.9–67.0)
75 and older			69.2	(64.9–73.4)
Race/Ethnicity **				
white	47.1	(42.1 – 52.1)	66.5	(63.4–69.5)
black	†	--	†	--
hispanic	44.5	(30.6 – 58.3)	47.3	(30.3–64.3)
asian	†	--	†	--
Education				
< high school	37.3	(26.1 – 48.6)	59.9	(52.1–67.7)
high school	49.7	(40.6 – 58.8)	63.8	(58.7–68.9)
college 1–3 yrs	48.3	(39.5 – 57.0)	70.5	(64.7–76.2)
college 4+ yrs	47.2	(39.4 – 55.0)	67.1	(61.3–72.9)
Household Income				
<$25,000	45.7	(35.8 – 55.5)	63.9	(59.0–68.7)
$25–34,999	32.1	(18.9 – 45.3)	67.5	(59.1–75.9)
$35–49,999	48.5	(36.5 – 60.4)	72.7	(64.6–80.7)
$50–74,999	52.0	(40.2 – 63.9)	63.7	(49.8–77.5)
$75,000+	49.5	(40.0 – 59.0)	70.7	(59.6–81.9)
Region				
I–Western	40.5	(29.3 – 51.7)	65.5	(57.6–73.3)
II–Central	53.7	(41.9 – 65.5)	61.6	(53.1–70.0)
III–North East	47.0	(36.6 – 57.4)	59.6	(52.1–67.1)
IV–Metro West	48.6	(38.2 – 58.9)	72.2	(66.2–78.2)
V–South East	44.2	(33.9 – 54.5)	66.7	(60.7–72.6)
VI–Boston	48.2	(36.9 – 59.5)	59.5	(50.2–68.8)1

* White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers

4. Chronic Health Conditions

Section 4–1: Cardiovascular Disease

All respondents ages 45 and older were asked if a doctor or other health professional had ever told them that they had suffered a stroke. Adults ages 45 and older were also asked if they had angina or coronary heart disease.

STROKE (Table 4.1b)

- 4% of Massachusetts adults ages 45 and older had ever had a stroke
- Men and women were equally likely to ever have had a stroke
- The percentage of adults who had a stroke increased with increasing age
- The percentage of adults who had a stroke decreased with increasing education and income
- Adults who had ever had a stroke were more likely to have reported that their health was either fair or poor (Figure 4.1a)

HEART DISEASE (Table 4.1b)

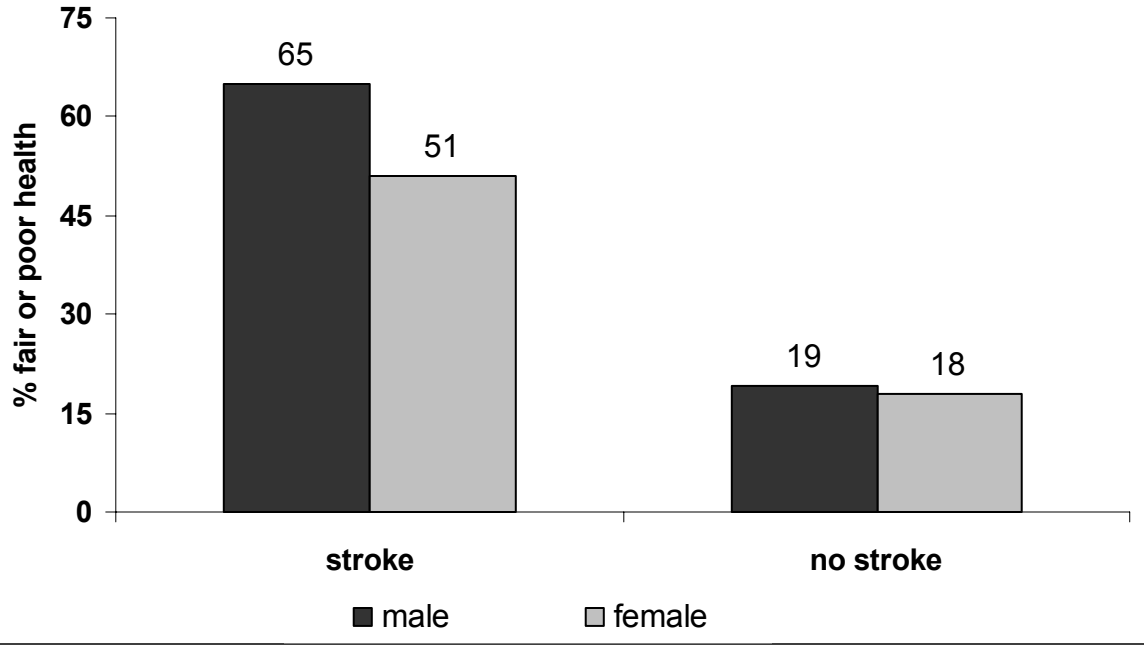
- 12% of Massachusetts adults ages 45 and older have ever had angina or coronary heart disease
- The percentage of adults who had angina or coronary heart disease increased with increasing age
- Black adults were less likely to have had angina or coronary heart disease than White or Hispanic adults
- Adults with the lowest levels of household income were more likely than other income groups to have had angina or coronary heart disease
- Among adults who were overweight, the percentage with angina or coronary heart disease increased with increasing age (Figure 4.1b)

TABLE 4.1a - CARDIOVASCULAR DISEASE
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	STROKE - EVER (AGES 45+)	ANGINA OR CORONARY HEART DISEASE (AGES 45+)
Massachusetts (%)	3.8	11.6
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

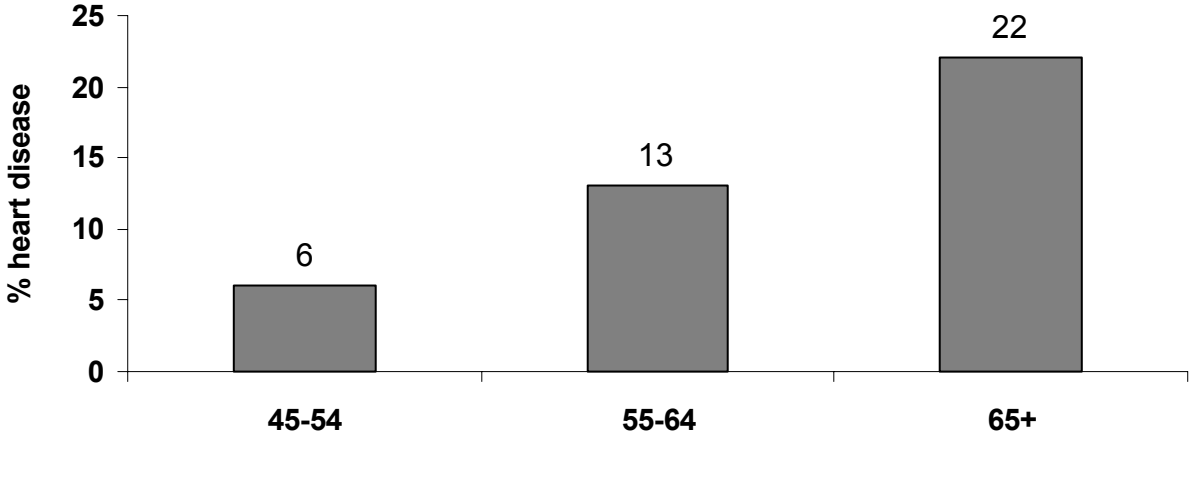
* No applicable objective.

Figure 4.1a: Percentage of men and women, ages 45 and older, in fair/poor health, by stroke status



Source: MA BRFSS, 2000

Figure 4.1b: Percentage of overweight adults (BMI > 25.0) with heart disease, by age



Source: MA BRFSS, 2000

Table 4.1b - Cardiovascular Disease among Massachusetts Adults ages 45 and older, 2000

	Stroke - Ever			Heart Disease - Ever		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	3.8	3.9	(3.1–4.6)	11.6	11.6	(10.4-12.8)
Gender						
male	3.3	3.6	(2.5–4.7)	14.1	15.0	(12.8-17.1)
female	4.3	4.1	(3.1–5.1)	9.6	9.0	(7.7-10.3)
Age Group						
45–54	1.7		(0.8–2.7) *	4.1		(2.8–5.4) *
55–64	2.7		(1.5–3.9) *	11.1		(8.6–13.6) *
65–74	5.0		(3.3–6.7) *	15.2		(12.2–18.1) *
75 and older	9.0		(6.4–11.6) *	25.2		(21.2–29.2) *
Race/Ethnicity **						
white	3.7	3.6	(2.9-4.4)	11.7	11.5	(10.3-12.7)
black	3.4	3.4	(0.9-5.9)	3.8	4.0	(1.4-6.6)
hispanic	6.4	5.7	(1.7-9.6)	13.0	14.8	(7.6-22.0)
asian	†	--	--	†	--	--
Education						
< high school	8.4	8.1	(4.4-11.8)	14.3	11.4	(8.2-14.6)
high school	5.0	4.7	(3.2-6.2)	13.1	12.3	(10.0-14.5)
college 1–3 yrs	2.7	2.7	(1.4-4.0)	13.0	13.0	(10.4-15.6)
college 4+ yrs	2.2	2.7	(1.6-3.8)	8.5	9.8	(7.7-11.8)
Household Income						
<$25,000	7.2	6.2	(3.7-8.7)	19.4	15.7	(12.7-18.7)
$25–34,999	4.4	3.5	(1.6-5.4)	11.4	10.1	(6.8-13.4)
$35–49,999	3.6	3.8	(1.9-5.7)	12.4	12.8	(9.3-16.3)
$50–74,999	1.2	1.0	(0.1-2.0)	4.4	5.9	(2.8-9.0)
$75,000+	0.9	2.8	(0.7-10.7)	7.2	9.4	(4.9-13.8)
Region						
I–Western	3.7	3.8	(1.8-5.7)	9.7	9.4	(6.6-12.3)
II–Central	3.4	3.5	(1.8-5.2)	14.3	14.4	(10.9-17.8)
III–North East	4.2	4.2	(2.5-5.8)	12.3	12.3	(9.3-15.4)
IV–Metro West	4.4	4.4	(2.6-6.1)	10.8	10.7	(8.2-13.2)
V–South East	3.5	3.5	(2.1-4.9)	12.2	11.9	(9.4-14.4)
VI–Boston	3.0	3.1	(1.4-4.8)	9.8	11.2	(7.7-14.6)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

Section 4–2: Respiratory Diseases

Respondents ages 45 and older were asked if a doctor or other health professional had ever told them that they had emphysema or chronic obstructive pulmonary disease (COPD). All respondents were asked if a doctor had ever told them that they had asthma and if they still have asthma.

COPD (AGES 45+) (Table 4.2b)

- 4% of Massachusetts adults ages 45 and older reported having COPD
- Similar percentages of men and women ages 45 and older reported having COPD
- Among adults ages 45 and older, those ages 65-74 were most likely to have COPD
- Adults with COPD were more likely to have ever smoked compared to adults who did not have COPD (Figure 4.2a)

ASTHMA (Table 4.2b)

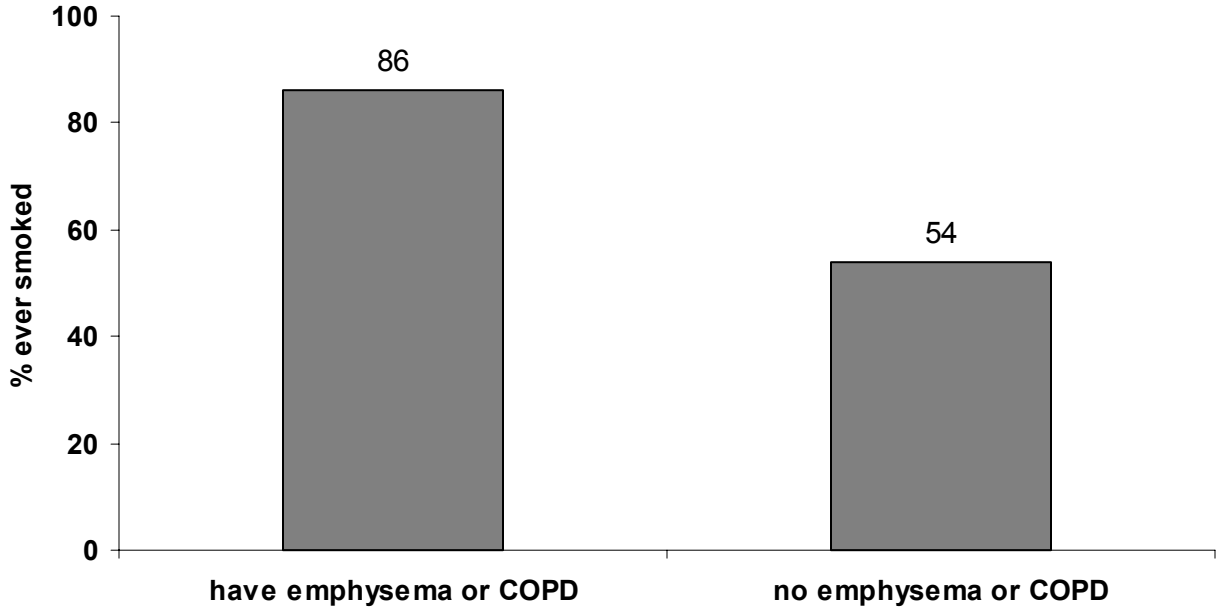
- 9% of Massachusetts adults reported currently having asthma
- Women were more likely to have asthma than men
- Asians were less likely to report having asthma than any other racial/ethnic groups
- The percentage of adults who have asthma decreased with increasing education and income
- A similar percentage of adults with and without asthma did not allow smoking in their homes (Figure 4.2b)

TABLE 4.2a - RESPIRATORY HEALTH
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	COPD (AGES 45+)	ASTHMA
Massachusetts (%)	4.1	8.5
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

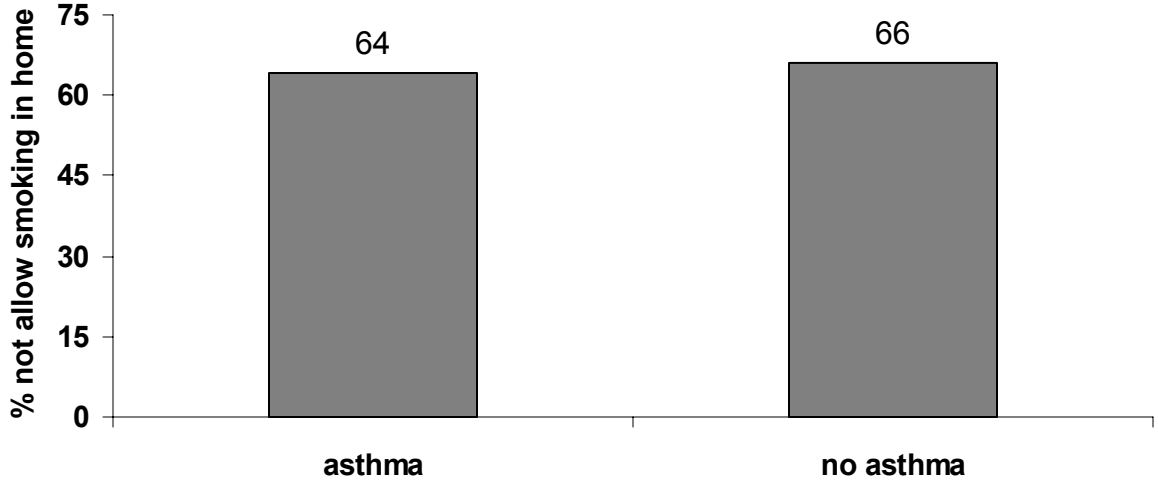
* No applicable objective.

Figure 4.2a: Percentage of adults who ever smoked, by emphysema/COPD by smoking status



Source: MA BRFSS, 2000

Figure 4.2b: Percentage of adults who do not allow smoking in their home, by current asthma status



Source: MA BRFSS, 2000

Table 4.2b - Respiratory Disease among Massachusetts Adults, 2000						
	COPD (45 AND OLDER)			ASTHMA - CURRENT		
	CRUDE	AGE–ADJUSTED		CRUDE	AGE–ADJUSTED	
	%	%	95% CI	%	%	95% CI
OVERALL	4.1	4.0	(3.2–4.8)	8.5	8.6	(7.8–9.3)
GENDER						
MALE	4.2	4.2	(3.0-5.3)	6.8	6.8	(5.8–7.8)
FEMALE	4.0	3.7	(2.7–4.7)	10.1	10.2	(9.2–11.3)
AGE GROUP						
18–24				10.6		(7.9–13.4) *
25–34				8.3		(6.9– 9.8) *
35–44				8.5		(7.0–10.0) *
45–54	1.7		(0.7–2.6) *	9.3		(7.4–11.2) *
55–64	3.5		(2.0–5.0) *	9.4		(7.3–11.4) *
65–74	7.8		(5.6–10.1) *	5.6		(4.0–7.3) *
75 AND OLDER	5.6		(3.3–7.9) *	6.3		(3.9–8.7) *
RACE/ETHNICITY **						
WHITE	4.3	4.1	(3.3-4.9)	8.4	8.6	(7.7-9.4)
BLACK	†	†	--	9.2	8.4	(5.5-11.4)
HISPANIC	4.5	4.7	(0.2-9.1)	10.1	10.4	(7.4-13.4)
ASIAN	†	†	--	3.5	2.3	(0.6-4.0)
EDUCATION						
< HIGH SCHOOL	6.2	5.9	(2.7-9.1)	10.7	10.9	(8.4-13.5)
HIGH SCHOOL	5.7	4.9	(3.3-6.5)	8.9	9.1	(7.6-10.6)
COLLEGE 1–3 YRS	3.8	3.8	(2.3-5.3)	8.5	8.3	(6.9-9.7)
COLLEGE 4+ YRS	2.2	2.4	(1.2-3.5)	7.7	7.7	(6.5-8.8)
HOUSEHOLD INCOME						
<$25,000	7.0	6.0	(3.7-8.4)	10.6	11.6	(9.6-13.6)
$25–34,999	3.1	2.6	(1.0-4.2)	8.9	9.5	(7.3-11.7)
$35–49,999	4.6	4.3	(2.2-6.3)	8.3	8.3	(6.3-10.3)
$50–74,999	2.0	4.5	(0.3-8.6)	7.7	7.6	(5.7-9.5)
$75,000+	2.1	3.9	(1.4-10.6)	7.7	7.3	(5.5-9.0)
REGION						
I–WESTERN	5.3	5.2	(2.7-7.7)	9.4	9.4	(7.4-11.3)
II–CENTRAL	3.6	3.6	(1.3-5.8)	10.2	10.2	(8.0-12.4)
III–NORTH EAST	4.5	4.4	(2.5-6.3)	9.0	9.0	(7.2-10.8)
IV–METRO WEST	3.7	3.4	(2.0-4.9)	6.9	7.1	(5.6-8.5)
V–SOUTH EAST	4.3	4.1	(2.5-5.7)	8.4	9.0	(7.2-10.8)
VI–BOSTON	2.8	3.2	(1.0-5.4)	8.0	8.4	(6.6-10.2)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

Section 4–3: Arthritis

All respondents were asked if they had experienced pain, stiffness or swelling in or around a joint in the past year, whether these symptons were present on most days for at least one month, and if they had ever been told by a physician that they had arthritis. Arthritis was defined as having joint pain, stiffness or swelling on most days for at least one month or a physician diagnosis of arthritis. Data on adults ages 45 and older are presented.

ARTHRITIS (Table 4.3b)

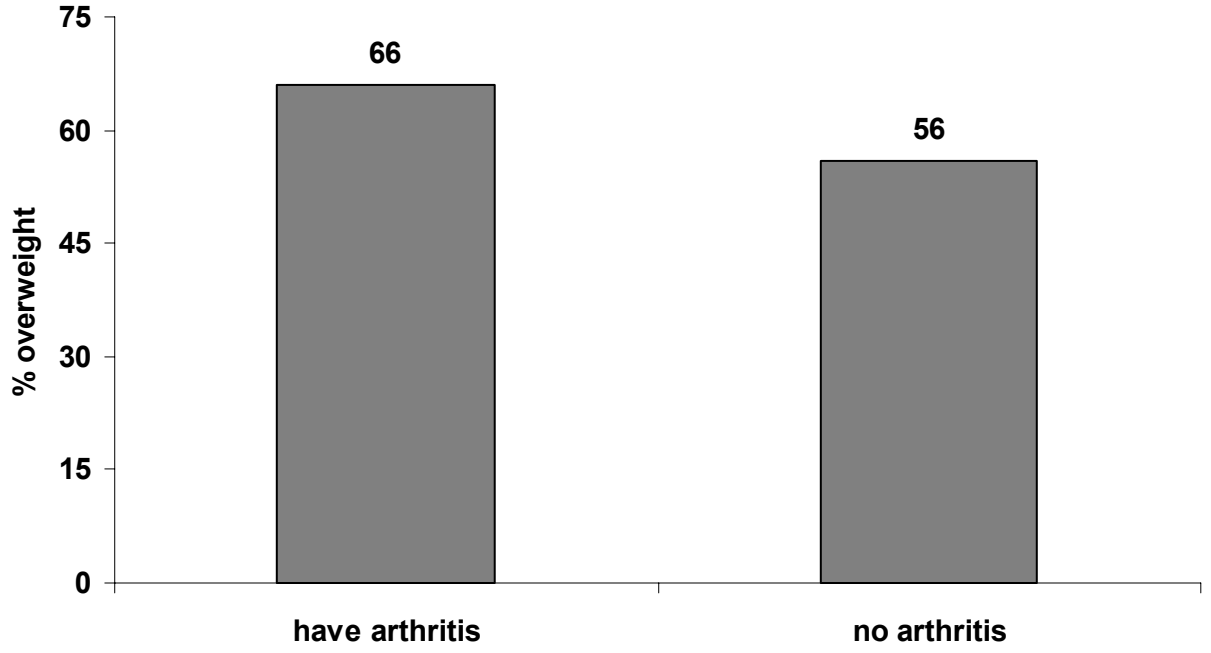
- 45% of Massachusetts adults ages 45 and older had arthritis
- Women were more likely than men to have arthritis
- The percentage of adults ages 45 and older with arthritis increased with increasing age
- The percentage of adults ages 45 and older with arthritis decreased with increasing income
- Adults with arthritis were more likely to be overweight compared to adults without arthritis (Figure 4.3a)
- Adults with and without arthritis were equally likely to engage in regular physical activity (Figure 4.3b)

TABLE 4.3a – ARTHRITIS
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	ARTHRITIS
Massachusetts (%)	44.6
US Median (%)	NA
Range of US States (%)	NA
Massachusetts Rank	NA
Healthy People 2010	*

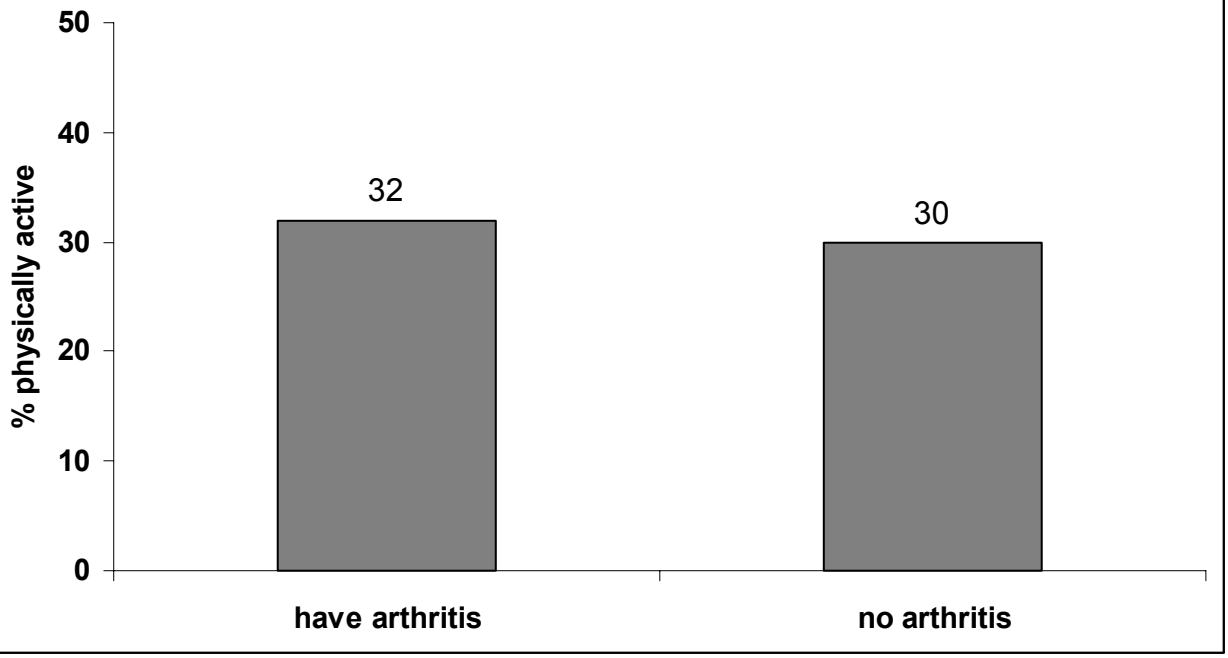
* No applicable objective.

Figure 4.3a: Percentage of adults, ages 45 and older, who are overweight, by arthritis status



Source: MA BRFSS, 2000

Figure 4.3b: Percentage of adults, ages 45 and older, who engage in regular physical activity, by arthritis status



Source: MA BRFSS, 2000

Table 4.3b - Arthritis among Massachusetts Adults ages 45 and older, 2000			
	CRUDE %	AGE–ADJUSTED %	95% CI
OVERALL	44.6	44.2	(41.3–47.1)
GENDER			
MALE	37.4	37.5	(32.8–42.1)
FEMALE	49.9	49.2	(45.5–52.9)
AGE GROUP			
45–54	32.6		(28.0–37.2)*
55–64	47.9		(41.8–54.0)*
65–74	52.5		(46.0–59.1)*
75 AND OLDER	55.6		(48.6–62.6)*
RACE/ETHNICITY **			
WHITE	44.8	44.21	(41.1-47.3)
BLACK	53.9	51.27	(35.1-67.5)
HISPANIC	37.5	39.39	(26.5-52.3)
ASIAN	†	†	--
EDUCATION			
< HIGH SCHOOL	47.7	44.0	(35.0-52.9)
HIGH SCHOOL	50.2	49.9	(44.2-55.5)
COLLEGE 1–3 YRS	43.6	42.8	(36.9-48.6)
COLLEGE 4+ YRS	39.6	41.4	(36.5-46.2)
HOUSEHOLD INCOME			
<$25,000	54.6	53.5	(46.4-60.6)
$25–34,999	52.7	50.0	(40.6-59.5)
$35–49,999	49.9	50.1	(41.9-58.2)
$50–74,999	39.4	49.8	(42.4-57.2)
$75,000+	30.5	33.4	(25.1-41.7)
REGION			
I–WESTERN	52.5	53.1	(45.6-60.5)
II–CENTRAL	41.3	40.5	(32.4-48.5)
III–NORTH EAST	44.3	44.0	(37.1-50.9)
IV–METRO WEST	41.3	40.7	(34.7-46.6)
V–SOUTH EAST	47.2	46.3	(40.4-52.3)
VI–BOSTON	38.7	39.4	(30.7-48.2)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

Section 4–4: Diabetes

All respondents were asked if they had been told by a doctor that they had diabetes. For the purposes of analysis, women who had diabetes only during pregnancy (gestational diabetes) were considered not to have diabetes.

DIABETES (Table 4.4b)

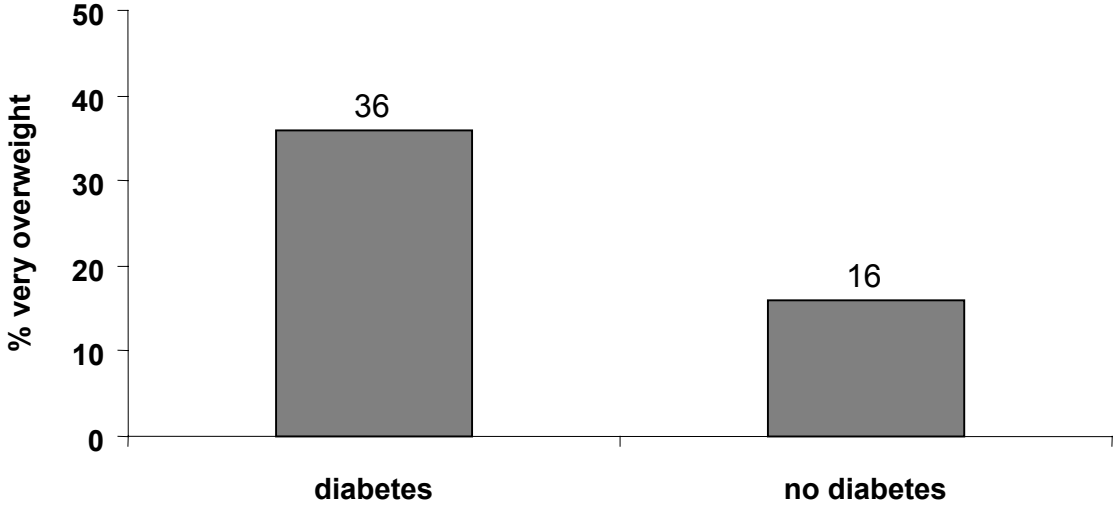
- 6% of Massachusetts adults had diabetes
- The percentage of adults with diabetes increased with increasing age
- White adults were less likely to have diabetes than Black or Hispanic adults
- Adults with less than a high school education were more likely to have diabetes than adults with higher levels of education
- The percentage of adults with diabetes decreased with increasing household income
- Adults with diabetes were more likely to be obese compared to adults without diabetes (Figure 4.4a)
- Adults with diabetes were more likely to have heart disease or stroke compared to adults without diabetes (Figure 4.4b)

TABLE 4.4a - DIABETES
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	DIABETES
Massachusetts (%)	5.8
US Median (%)	6.2
Range of US States (%)	3.8 – 8.5
Massachusetts Rank	17th *
Healthy People 2010	2.5

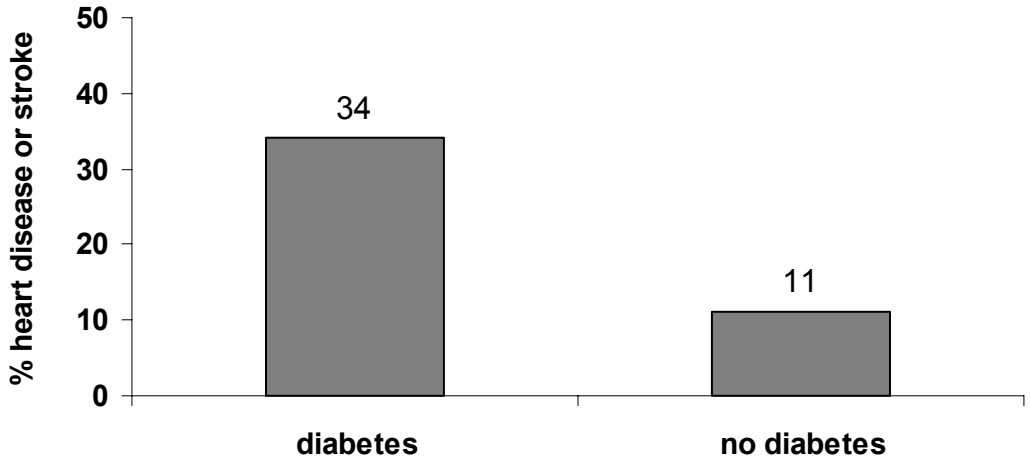
* 1st = lowest percentage of adults with diabetes, 52nd = highest percentage of adults with diabetes.

Figure 4.4a: Percentage of adults who are obese, by diabetes status (age-adjusted)



Source: MA BRFSS, 2000

Figure 4.4b: Percentage of adults, ages 45 and older, who had heart disease or stroke, by diabetes status



Source: MA BRFSS, 2000

Table 4.4b - Diabetes among Massachusetts Adults, 2000

	Crude %	Age–Adjusted %	95% CI
Overall	5.8	5.7	(5.1–6.3)
Gender			
male	6.0	6.3	(5.3–7.3)
female	5.6	5.3	(4.5–6.0)
Age Group			
18–24	0.6		(0.0–1.3) *
25–34	0.9		(0.4–1.5) *
35–44	2.0		(1.2–2.7) *
45–54	6.7		(5.1–8.2) *
55–64	11.4		(8.9–14.0) *
65–74	14.3		(11.4–17.3) *
75 and older	14.0		(10.7–17.3) *
Race/Ethnicity **			
white	5.6	5.2	(4.6-5.8)
black	7.8	8.9	(5.9-11.9)
hispanic	7.6	12.5	(8.8-16.2)
asian	1.1	5.8	(1.1-25.6)
Education			
< high school	13.5	11.8	(9.3-14.3)
high school	6.6	6.0	(4.7-7.2)
college 1–3 yrs	5.7	6.1	(4.8-7.4)
college 4+ yrs	3.4	3.8	(2.9-4.7)
Household Income			
<$25,000	9.3	8.1	(6.5-9.6)
$25–34,999	6.2	5.8	(3.8-7.8)
$35–49,999	5.3	5.6	(3.9-7.2)
$50–74,999	3.9	4.1	(2.6-5.7)
$75,000+	2.8	3.2	(1.9-4.5)
Region			
I–Western	6.8	6.6	(5.0-8.1)
II–Central	4.2	4.1	(2.8-5.5)
III–North East	5.6	5.7	(4.3-7.1)
IV–Metro West	5.2	4.9	(3.7-6.1)
V–South East	7.5	6.5	(5.0-7.9)
VI–Boston	4.8	6.2	(4.5-7.9)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 4–5: Disability

All respondents were asked about disabilities and activity limitations. Respondents were classified as having a disability if, for at least one year, they had an impairment that limited activities or caused cognitive difficulties, they used special equipment or help from others to get around, or they reported a disability of any kind. Those who reported a disability were then asked if, as a result of their disability, they required assistance with personal care or routine needs.

HAD DISABILITY (Table 4.5b)

- 21% of Massachusetts adults had a disability or limitation
- An equal percentage of men and women had a disability or limitation
- The percentage of adults with a disability increased with increasing age
- Asians were less likely to have a disability than adults of all other racial/ethnic groups
- The percentage of adults with a disability decreased with increasing education and income

DISABILITY/ NEED HELP WITH ACTIVITIES SUCH AS PERSONAL CARE OR ROUTINE NEEDS (Table 4.5b)

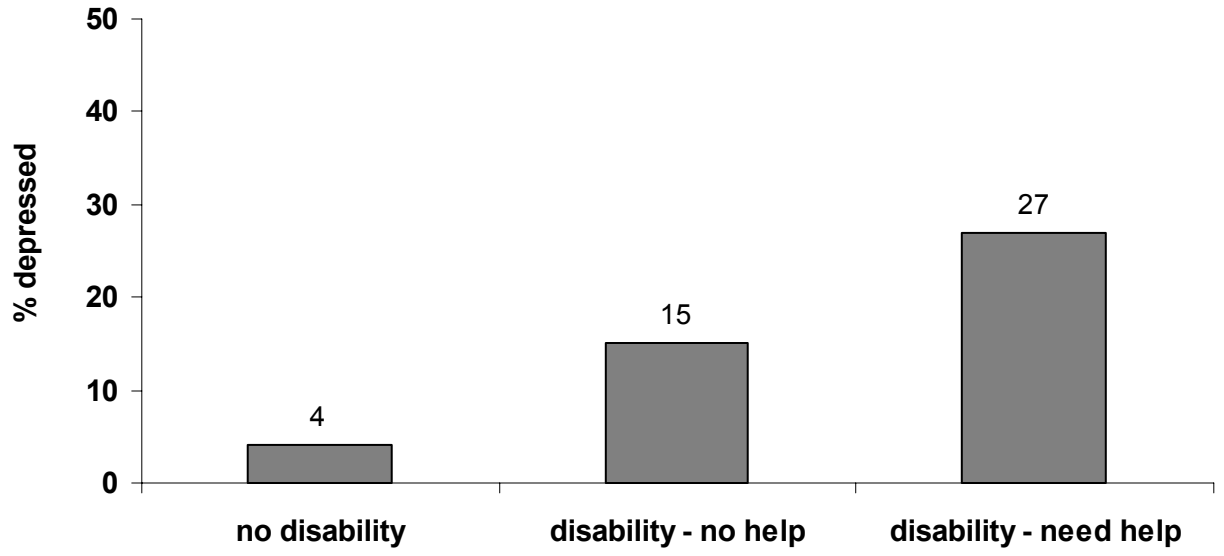
- 6% of Massachusetts adults had a disability or limitation and required help with daily activities
- Women were more likely to have a disability and need help with daily activities than men
- The percentage of adults with a disability and in need of help with daily activities increased with increasing age
- Adults with lower levels of education and income were more likely to have a disability or limitation requiring help with daily activities
- Adults with disabilities who needed assistance were more likely to feel sad, blue or depressed for 15 or more days in the past month compared to adults without disabilities or adults with disabilities who did not require assistance (Figure 4.5a)
- Among adults with disabilities who needed assistance, women were more likely than men to describe their care as adequate (Figure 4.5b)

TABLE 4.5a - DISABILITY
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	HAD DISABILITY	DISABILITY REQUIRING HELP WITH ACTIVITIES
Massachusetts (%)	20.9	5.8
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

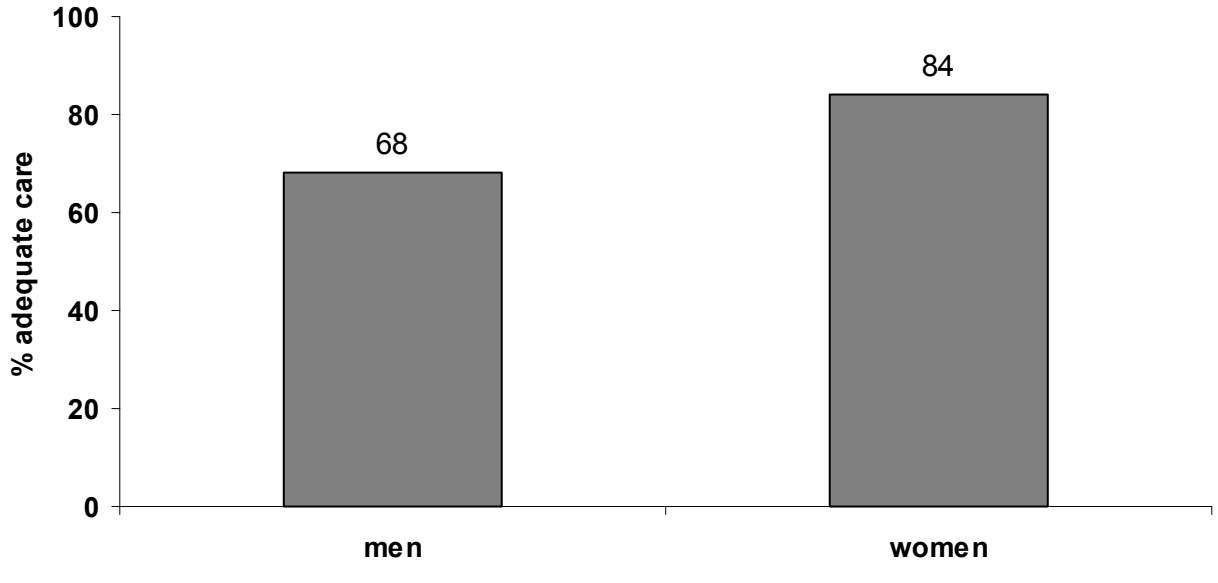
* No applicable objective.

Figure 4.5a: Percentage of adults sad, blue or depressed 15+ days in the past month, by disability status



Source: MA BRFSS, 2000

Figure 4.5b: Percentage of adults with disabilities, who need help with personal care or routine needs, and usually receive adequate care, by gender



Source: MA BRFSS, 2000

Table 4.5b – Disability among Massachusetts Adults, 2000

	Have Disability			Disability/ Need Help with Activities		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	20.9	21.0	(19.6–22.4)	5.8	5.8	(5.0–6.6)
Gender						
male	20.4	21.2	(19.0–23.3)	4.4	4.7	(3.5–5.8)
female	21.4	20.9	(19.2–22.7)	7.0	6.7	(5.6–7.7)
Age Group						
18–24	13.9		(9.6–18.1) *	1.5		(0.2–2.8) *
25–34	12.9		(10.3–15.5) *	2.3		(1.4–3.2) *
35–44	15.2		(12.9–17.5) *	4.0		(2.8–5.1) *
45–54	23.2		(19.8–26.5) *	6.4		(4.3–8.6) *
55–64	29.2		(24.7–33.7) *	9.7		(6.6–12.8) *
65–74	32.1		(27.0–37.2) *	10.1		(6.7–13.5) *
75 and older	38.5		(32.5–44.5) *	14.5		(10.3–18.8) *
Race/Ethnicity **						
white	21.3	20.8	(19.3-22.3)	5.8	5.52	(4.7-6.3)
black	18.2	22.0	(15.5-28.5)	6.7	9.95	(5.2-14.7)
hispanic	21.2	26.9	(21.1-32.6)	6.6	8.55	(4.4-12.7)
asian	9.0	6.9	(1.7-12.0)	†	†	--
Education						
< high school	35.4	34.9	(29.9-39.9)	14.7	14.4	(10.4-18.4)
high school	23.4	22.7	(19.9-25.5)	6.5	6.2	(4.7-7.6)
college 1–3 yrs	21.2	21.5	(18.7-24.3)	6.7	6.8	(5.0-8.6)
college 4+ yrs	15.8	17.1	(15.0-19.3)	2.9	3.1	(2.2-4.0)
Household Income						
<$25,000	36.3	37.4	(33.5-41.4)	15.6	15.9	(12.7-19.2)
$25–34,999	23.4	22.4	(18.2-26.5)	4.9	5.2	(3.1-7.4)
$35–49,999	22.5	23.3	(19.4-27.2)	6.0	6.2	(3.9-8.5)
$50–74,999	13.1	15.2	(11.4-18.9)	3.2	3.8	(1.6-6.1)
$75,000+	12.6	13.4	(10.3-16.4)	1.1	1.6	(0.3-2.9)
Region						
I–Western	22.7	22.2	(18.6-25.8)	7.2	7.2	(4.8-9.6)
II–Central	24.2	24.1	(19.9-28.3)	6.6	6.5	(4.3-8.6)
III–North East	20.4	20.8	(17.6-24.0)	5.1	5.3	(3.5-7.0)
IV–Metro West	19.3	18.8	(15.9-21.7)	5.0	4.6	(3.1-6.1)
V–South East	22.0	21.1	(18.1-24.0)	6.6	6.0	(4.5-7.6)
VI–Boston	17.8	21.2	(17.5-24.9)	4.9	6.2	(3.3-9.0)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers.

5. Cancer Screening

Section 5–1: Breast Cancer Screening

All women were asked about frequency of breast cancer screening, which included both clinical breast exam and mammogram. In this analysis, we looked at the percentage of women ages 40 and older who reported having had a mammogram within the past two years and the percentage of all women who reported having had a clinical breast exam (CBE) within the past two years.

MAMMOGRAM IN THE PAST 2 YEARS, WOMEN AGES 40 AND OLDER (Table 5.1b)

- 84% of Massachusetts women ages 40 and older reported having a mammogram in the past 2 years
- Women ages 80 or older were less likely to have had a mammogram in the past 2 years than younger women
- The percentage of women ages 40 or older who had a mammogram in the past two years was consistent across all racial/ethnic groups and education levels
- Women ages 40 or older at the lowest levels of household income were less likely to have had a mammogram in the past 2 years than women in higher household income categories
- Among women ages 40 or older, there was no difference in mammogram in the past 2 years based on disability status (Figure 5.1a)

CBE IN PAST 2 YEARS, ALL WOMEN (Table 5.1b)

- 86% of Massachusetts women reported having a CBE in the past 2 years
- Women ages 80 and older were less likely to have had a CBE in the past two years than younger women
- The percentage of women who had a CBE in the past two years increased with increasing education and income
- Among women ages 18 to 24, Asian women were less likely to have had a CBE compared to White, Black or Hispanic women (Figure 5.1b)

TABLE 5.1a - BREAST CANCER SCREENING HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

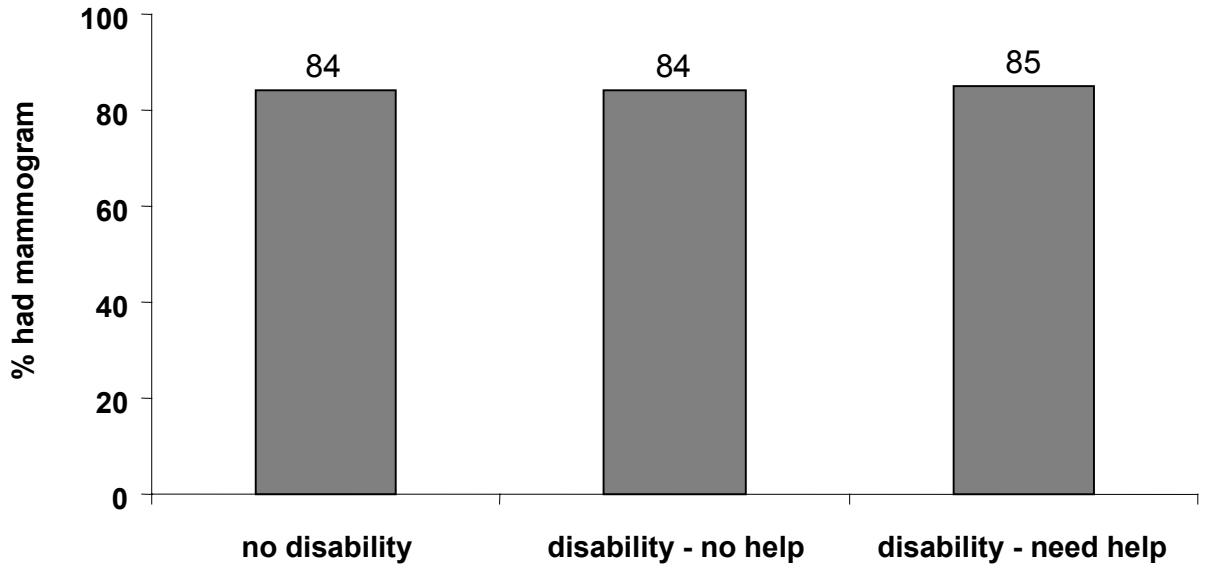
	MAMMOGRAM IN PAST 2 YEARS, WOMEN AGES 40+	CBE IN PAST 2 YEARS, ALL WOMEN
Massachusetts (%)	84.2	85.7
US Median (%)	76.1	79.0
Range of US States (%)	66.2 – 87.8	65.8 – 86.9
Massachusetts Rank	3rd *	2nd **
Healthy People 2010	70.0	***

* 1st = highest percentage of women ages 40+ receiving a mammogram in past two years, 52nd = lowest percentage of women ages 40+ receiving a mammogram in the past two years.

** 1st = highest percentage of women receiving a clinical breast exam in past two years, 52nd = lowest percentage of women receiving a clinical breast exam in past two years.

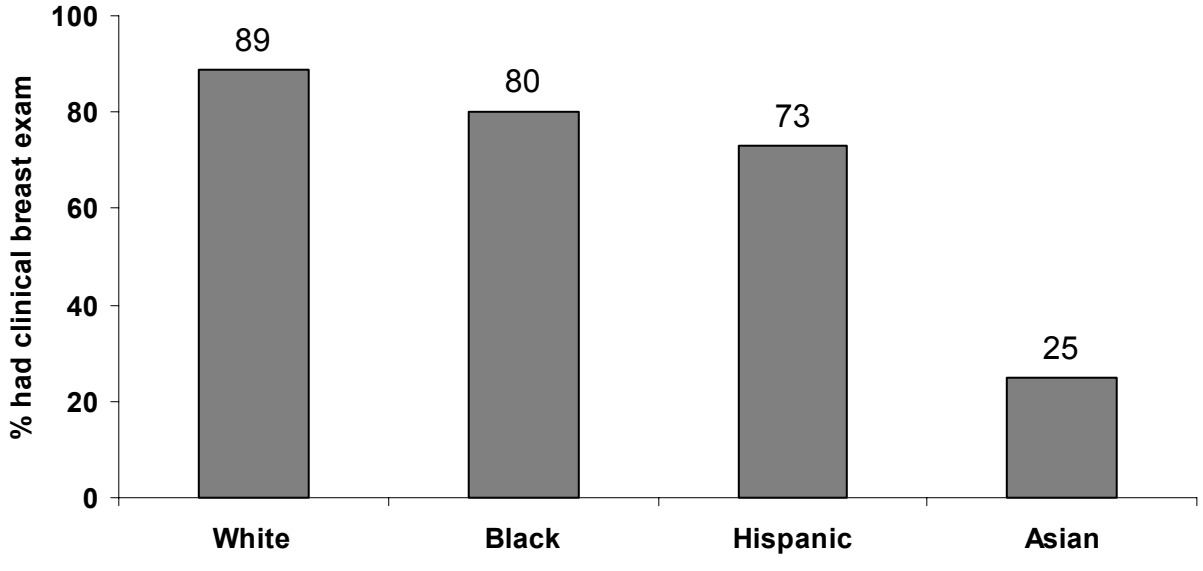
*** No applicable objective.

Figure 5.1a: Percentage of women, ages 40 and older, who had a mammogram in the past 2 years, by disability status



Source: MA BRFSS, 2000

Figure 5.1b: Percentage of young women, ages 18-24, who had a clinical breast exam in the past two years, by race



Source: MA BRFSS, 1998 - 2000

Table 5.1b – Breast Cancer Screening among Massachusetts Women, 2000

	Mammogram in Past 2 years, Women Age 40+			CBE in Past 2 Years, All Women		
	Crude %	Age–Adjusted %	95% CI	Crude %	Age–Adjusted %	95% CI
Overall	84.2	83.9	(82.3–85.4)	85.7	86.0	(84.8–87.1)
Gender						
male						
female	84.2	83.9	(82.3–85.4)	85.7	86.0	(84.8–87.1)
Age Group						
18–29				82.3		(77.9–86.8) *
30–39				86.2		(83.7-88.7) *
40–49	80.1		(77.2–83.1) *	87.7		(85.4-90.0) *
50–59	89.7		(87.1–92.3) *	89.9		(87.5–92.3) *
60–69	88.7		(85.6–91.7) *	88.4		(85.5–91.3) *
70–79	84.2		(80.2–88.2) *	85.8		(82.2-89.4) *
80 and older	70.7		(63.7–77.6) *	73.3		(68.4-78.1) *
Race/Ethnicity **						
white	83.9	83.6	(81.9-85.3)	87.0	87.5	(86.3-88.7)
black	87.2	87.3	(79.8-94.9)	87.7	88.6	(83.8-93.3)
hispanic	89.0	87.9	(82.6-93.2)	80.9	83.7	(79.8-87.5)
asian	†	†	--	59.6	66.7	(52.0-81.4)
Education						
< high school	81.2	80.8	(75.5-86.2)	77.8	78.8	(74.2-83.5)
high school	83.1	83.5	(80.7-86.3)	82.4	83.0	(80.5-85.5)
college 1–3 yrs	83.1	82.2	(78.9-85.6)	86.3	86.8	(84.5-89.0)
college 4+ yrs	87.2	87.3	(84.8-89.8)	89.8	89.7	(87.9-91.4)
Household Income						
<$25,000	77.9	76.1	(71.9-80.3)	78.9	79.4	(76.4-82.4)
$25–34,999	84.9	84.6	(79.8-89.3)	83.5	83.9	(80.1-87.6)
$35–49,999	84.2	84.4	(80.3-88.4)	86.6	86.4	(83.2-89.5)
$50–74,999	85.4	86.5	(82.4-90.6)	89.3	89.5	(86.7-92.3)
$75,000+	88.5	90.3	(87.3-93.3)	93.6	92.9	(90.1-95.7)
Region						
I–Western	81.8	82.0	(77.8-86.2)	85.1	85.2	(82.1-88.3)
II–Central	81.3	81.8	(77.4-86.1)	84.6	84.9	(81.5-88.3)
III–North East	85.5	85.3	(82.1-88.6)	86.2	86.3	(83.7-89.0)
IV–Metro West	85.7	84.2	(80.7-87.7)	85.9	86.4	(83.9-89.0)
V–South East	83.8	83.6	(80.1-87.1)	86.8	87.1	(84.5-89.7)
VI–Boston	86.1	85.7	(81.3-90.0)	84.3	85.5	(82.6-88.4)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

Section 5–2: Cervical Cancer Screening

All women were asked whether or not they had ever had a Pap smear to test for cervical cancer. Those who reported having the test were asked how long it had been since their last test. This analysis examined the percentage of women who had a Pap smear within the past three years. Women who had a hysterectomy were excluded from the analysis.

PAP SMEAR TEST IN PAST 3 YEARS (Table 5.2b)

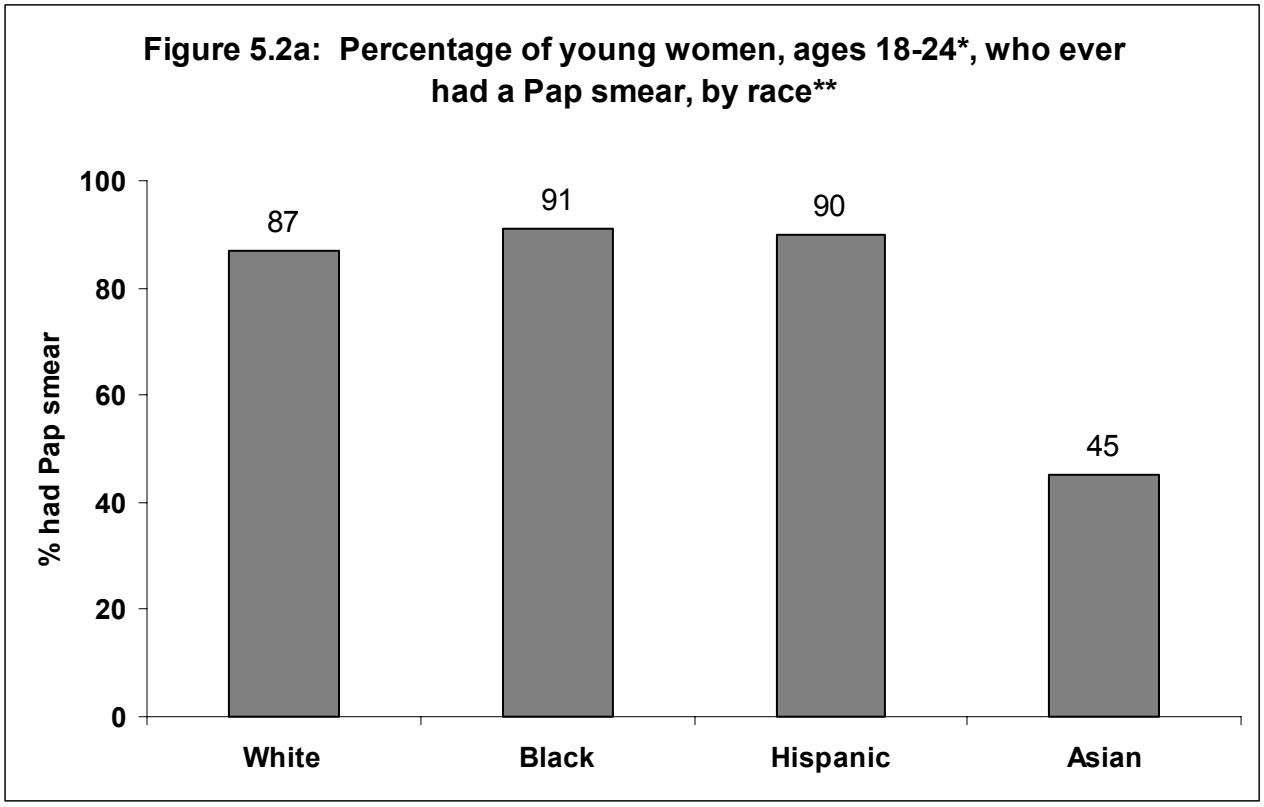
- 90% of Massachusetts women reported having a Pap smear in the past three years
- Women ages 75 and older were less likely to have had a Pap smear in the past 3 years
- Black women were more likely to have had a Pap smear in the past three years than all other racial/ethnic groups
- Among young women ages 18 to 24, Asian women were less likely to have had a Pap smear in the past three years, compared to White, Black or Hispanic women (Figure 5.2a)
- There was no difference in the percentage of women who had a Pap smear in the past three years based on their type of health insurance (Figure 5.2b)

TABLE 5.2a - CERVICAL CANCER SCREENING HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	PAP SMEAR TEST IN PAST 3 YEARS
Massachusetts (%)	89.5
US Median (%)	86.8
Range of US States (%)	72.7 – 92.0
Massachusetts Rank	6th *
Healthy People 2010	90.0

* 1st = highest percentage of women receiving a Pap smear in past three years, 52nd = lowest percentage of women receiving a Pap smear in past three years.

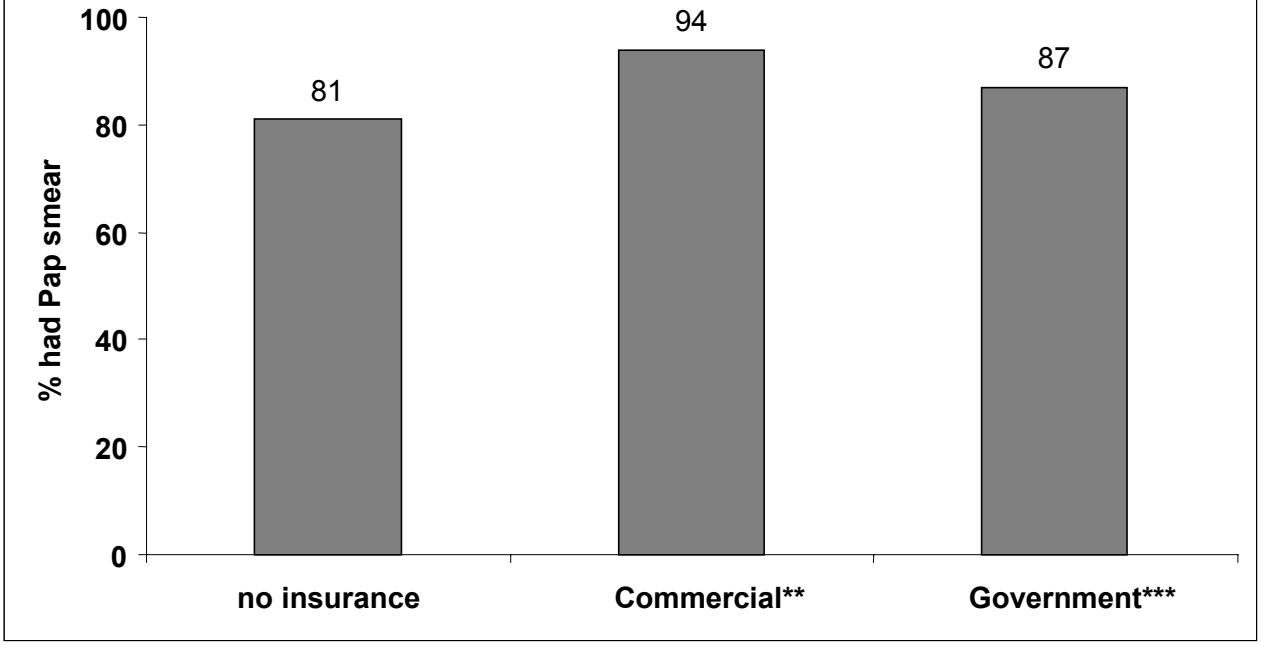
Figure 5.2a: Percentage of young women, ages 18-24*, who ever had a Pap smear, by race**



* Among women without hysterectomy.
Source: MA BRFSS, 1998 – 2000

** White, Black and Asian race categories refer to non-Hispanic.

Figure 5.2b: Percentage of women, ages 18-64*, who had a Pap smear in the past 3 years, by insurance



* Among women without hysterectomy.
Source: MA BRFSS, 2000

** Insurance through an employer or plan bought by an individual.

*** Insurance through Medicare, Medicaid, Military or Indian Health Service.

Table 5.2b - Cervical Cancer Screening among Massachusetts Women, 2000

	Pap Smear Test within past 3 yrs*		
	Crude	Age–Adjusted	
	%	%	95% CI
Overall	89.5	89.5	(88.3–90.7)
Gender			
male	NA	NA	NA
female	89.5	89.5	(88.3–90.7)
Age Group			
18–24	86.4		(82.2–90.5) **
25–34	92.8		(90.8–94.8) **
35–44	93.7		(92.0–95.4) **
45–54	94.4		(92.3–96.5) **
55–64	91.5		(88.7–94.4) **
65–74	80.9		(75.3–86.5) **
75 and older	69.9		(63.6–76.2) **
Race/Ethnicity ***			
white	89.7	89.8	(88.5-91.0)
black	96.0	97.5	(95.5-99.5)
hispanic	90.0	90.2	(86.1-94.2)
asian	†	†	--
Education			
< high school	83.0	84.3	(79.3-89.3)
high school	86.6	88.1	(85.8-90.4)
college 1–3 yrs	89.6	90.1	(88.0-92.2)
college 4+ yrs	92.8	91.9	(90.1-93.7)
Household Income			
<$25,000	83.9	85.4	(82.5-88.2)
$25–34,999	87.3	87.9	(84.3-91.4)
$35–49,999	91.8	91.0	(88.1-94.0)
$50–74,999	93.0	90.7	(86.9-94.5)
$75,000+	95.3	93.1	(89.0-97.2)
Region			
I–Western	89.6	89.8	(87.1-92.6)
II–Central	89.3	89.2	(85.8-92.7)
III–North East	89.8	89.8	(87.1-92.5)
IV–Metro West	89.4	89.2	(86.5-91.8)
V–South East	91.0	90.8	(88.4-93.2)
VI–Boston	87.3	89.0	(85.9-92.1)

* Among women without hysterectomy.
** Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.
*** White, Black and Asian race categories refer to non-Hispanic.
† Insufficient numbers.

Section 5–3: Colorectal Cancer Screening

All adults ages 50 and older were asked about colorectal cancer screening, including blood stool test and sigmoidoscopy or colonoscopy. In this analysis, we examined the percentage who reported having a blood stool test within the past two years and the percentage who reported having had a sigmoidoscopy or colonoscopy within the past five years.

BLOOD STOOL TEST IN THE PAST TWO YEARS (Table 5.3b)

- 36% of Massachusetts adults ages 50 and older reported having a blood stool test in the past two years
- Women were more likely than men to have had a blood stool test in the past two years
- The percentage of adults ages 50 and older who had a blood stool test in the past two years increased with increasing age until age 79, then decreased
- The percentage of adults ages 50 and older who had a blood stool test in the past two years was consistent across education and income levels
- Among adults ages 50-64, those with commercial health insurance were more likely to have had a blood stool test in the past two years compared to those with no health insurance or government health insurance (Figure5.3a)

SIGMOIDOSCOPY OR COLONOSCOPY IN THE PAST FIVE YEARS (Table 5.3b)

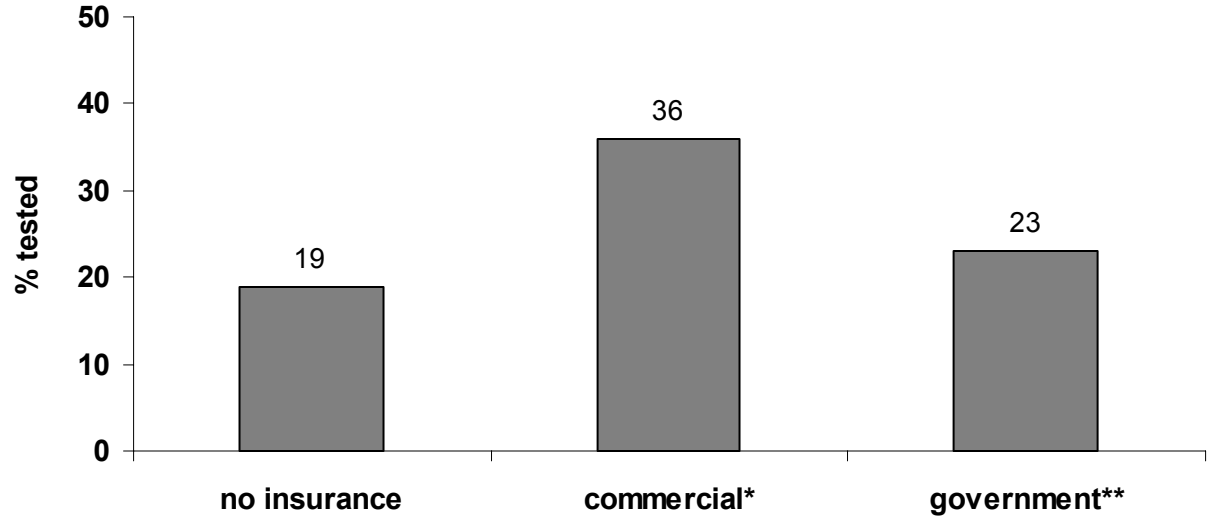
- 39% of Massachusetts adults ages 50 and older reported having a sigmoidoscopy or colonoscopy in the past five years
- The percentage of adults ages 50 and older who had a sigmoidoscopy or colonoscopy in the past five years increased with increasing age until age 79, then decreased
- Black adults were more likely to have had a sigmoidoscopy or colonoscopy in the past five years than adults in other racial/ethnic groups
- Adults with less than a high school education were less likely than those with higher levels of education to have had a sigmoidoscopy or colonoscopy in the past five years
- Men were more likely than women to have had sigmoidoscopy or colonoscopy in the past five years (Figure 5.3b)

TABLE 5.3a - COLORECTAL CANCER SCREENING, ADULTS AGES 50+ HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	BLOOD STOOL TEST IN PAST 2 YEARS	SIGMOIDOSCOPY OR COLONOSCOPY IN PAST 5
Massachusetts (%)	36.2	38.7
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	50.0	*

* No applicable objective.

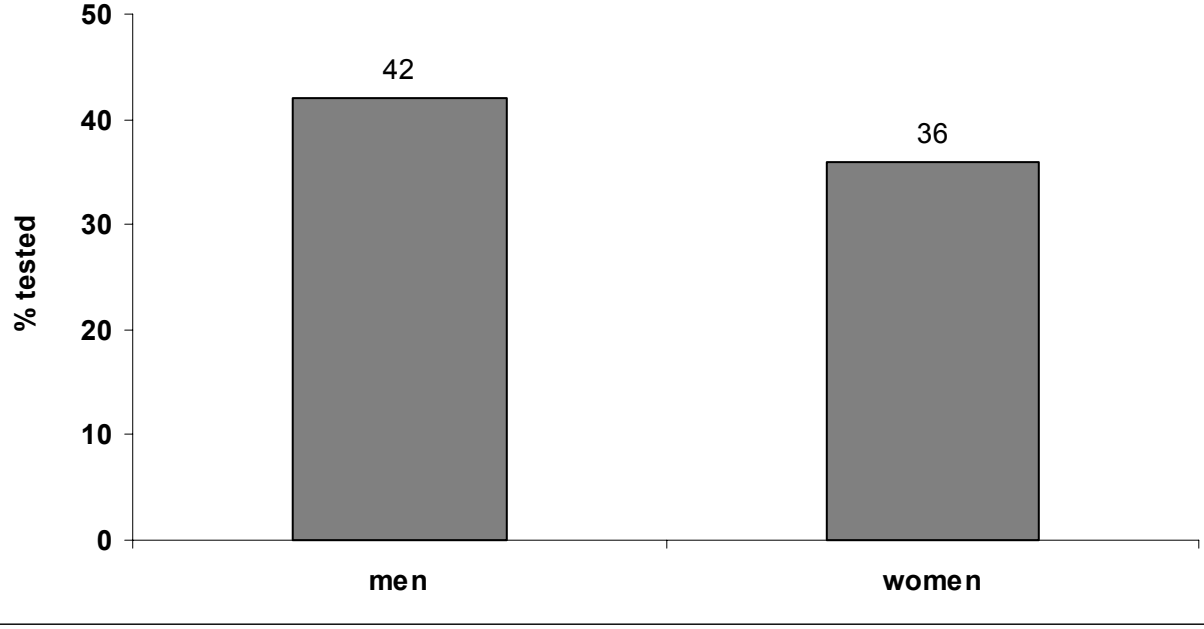
Figure 5.3a: Percentage of adults, ages 50 to 64, who had a blood stool test in the past 2 years, by insurance type



* Insurance through an employer or plan bought by an individual.
** Insurance through Medicare, Medicaid, Military or Indian Health Service.

Source: MA BRFSS, 2000

Figure 5.3b: Percentage of adults, ages 50 and older, who had a sigmoidoscopy or colonoscopy in the past 5 years, by gender



Source: MA BRFSS, 2000

Table 5.3b - Colorectal Cancer Screening among Massachusetts Adults ages 50 and older, 2000

	Blood Stool Test in the Past 2 Years			Sigmoidoscopy or Colonoscopy in past 5 years		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	36.2	35.5	(33.2–37.9)	38.7	38.3	(35.8–40.7)
Gender						
male	32.8	32.1	(28.3–35.8)	41.8	41.3	(37.4–45.1)
female	38.9	37.9	(34.9–40.9)	36.2	35.5	(32.6–38.5)
Age Group						
50–59	30.8		(27.1–34.5) *	33.1		(29.3–36.9) *
60–69	38.2		(33.6–42.8) *	40.6		(35.9–45.2) *
70–79	45.9		(40.7–51.0) *	47.3		(42.1–52.5) *
80 and older	27.1		(20.3–33.9) *	34.6		(27.2–41.9) *
Race/Ethnicity **						
white	36.5	35.7	(33.2-38.2)	39.2	38.5	(35.9-41.0)
black	41.6	43.7	(30.0-57.3)	53.8	51.7	(38.6-64.8)
hispanic	26.8	27.2	(17.4-37.0)	29.8	33.6	(22.5-44.8)
asian	†	†	--	†	†	--
Education						
< high school	29.0	28.3	(22.1-34.5)	27.2	25.7	(20.4-30.9)
high school	39.3	38.2	(33.7-42.7)	38.0	37.3	(32.8-41.8)
college 1–3 yrs	35.4	35.1	(30.2-40.1)	38.7	38.5	(33.4-43.6)
college 4+ yrs	36.4	36.6	(32.4-40.7)	43.6	43.9	(39.6-48.3)
Household Income						
<$25,000	34.8	32.1	(27.5-36.7)	37.3	32.4	(28.3-36.6)
$25–34,999	39.9	39.0	(31.2-46.8)	39.4	36.6	(29.1-44.1)
$35–49,999	36.8	35.9	(29.5-42.3)	42.3	42.4	(35.6-49.2)
$50–74,999	33.9	32.7	(25.3-40.0)	32.4	37.4	(28.4-46.3)
$75,000+	36.4	44.2	(36.3-52.2)	47.0	52.3	(44.9-59.8)
Region						
I–Western	39.1	38.1	(32.0-44.1)	36.3	35.8	(29.7-41.9)
II–Central	36.1	35.3	(28.7-41.9)	38.3	37.7	(30.9-44.5)
III–North East	35.2	34.8	(29.2-40.3)	41.4	40.8	(35.1-46.6)
IV–Metro West	41.3	40.9	(35.5-46.2)	40.5	40.5	(35.1-45.9)
V–South East	30.4	29.4	(24.7-34.0)	35.2	34.0	(29.1-38.9)
VI–Boston	35.3	36.2	(29.4-42.9)	42.4	42.1	(35.0-49.3)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

Section 5–4: Prostate Cancer Screening

All men ages 50 and older were asked about prostate screening, including Prostate Specific antigen (PSA) test and digital rectal exam (DRE). We examined the percentage of men ages 50 and older who had a PSA in the past year and the percentage of men ages 50 and older who had a DRE in the past year, in accordance with American Cancer Society recommendations for prostate cancer screening.

PSA IN THE PAST YEAR (Table 5.4b)

- 59% of Massachusetts men ages 50 and older reported having a PSA test in the past year
- The percentage of men ages 50 and older who had a PSA test in the past year increased with increasing age until age 79, then decreased
- White men were more likely than Hispanic men to have had a PSA test in the past year
- The percentage of men ages 50 and older who had a PSA test in the past year increased with increasing education
- Among men ages 50 to 64, those with no health insurance were less likely to have had a PSA test in the past year compared to those with commercial or government health insurance (Figure 5.4a)

DRE IN THE PAST YEAR (Table 5.4b)

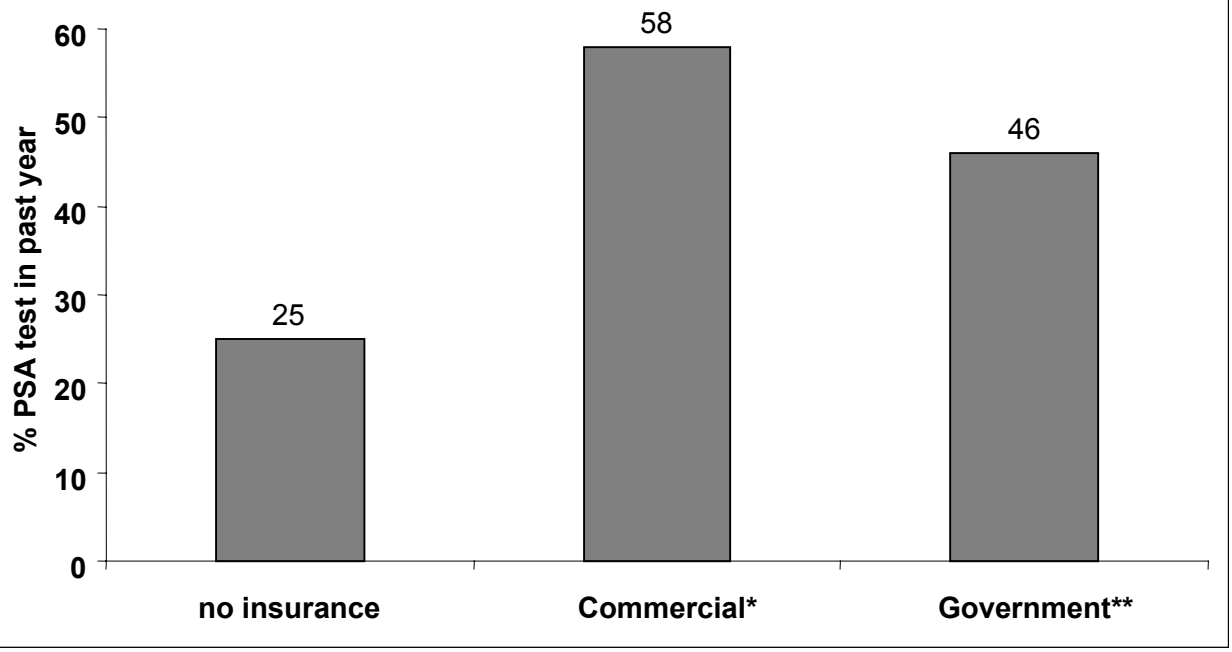
- 70% of Massachusetts men ages 50 and older reported having a DRE in the past year
- The percentage of men ages 50 and older who had a DRE in the past year increased with increasing age until age 79, then decreased
- White men were more likely than Hispanic men to have had a DRE in the past year
- Men ages 50 and older of lower income were less likely than those with higher income to have had a DRE in the past year
- Men ages 65 and older were more likely to have had both a PSA test and DRE in the past year compared to men ages 50 to 64 (Figure 5.4b)

TABLE 5.4a - PROSTATE CANCER SCREENING, MEN AGES 50+
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	PSA IN PAST YEAR	DRE IN PAST YEAR
Massachusetts (%)	59.2	69.7
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

* No applicable objective.

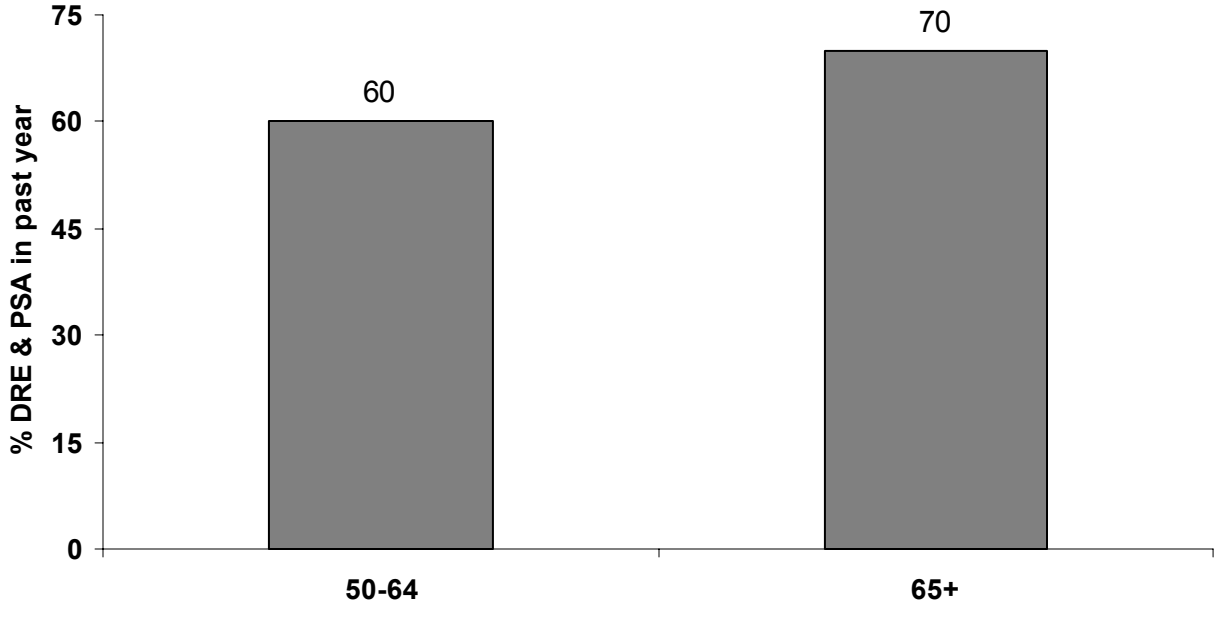
Figure 5.4a: Percentage of males, ages 50-64, who had a PSA test in past year, by insurance type



* Insurance through an employer or plan bought by an individual.
** Insurance through Medicare, Medicaid, Military or Indian Health Service.

Source: MA BRFSS, 2000

Figure 5.4b: Percentage of males, ages 50 and older, who had a DRE and PSA in past year, by age



Source: MA BRFSS, 2000

Table 5.4b - Prostate Cancer Screening among Massachusetts Men ages 50 and older, 2000

	PSA in Past Year			DRE in Past Year		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	59.2	58.9	(54.8–63.0)	69.7	68.7	(64.9–72.5)
Gender						
male	59.2	58.9	(54.8–63.0)	69.7	68.7	(64.9-72.5)
female						
Age Group						
50–59	51.1		(44.6–57.7) *	65.2		(59.1–71.2) *
60–69	63.8		(56.1–71.5) *	73.9		(67.3–80.6) *
70–79	71.1		(63.5–78.6) *	79.4		(73.0–85.9) *
80 and older	52.6		(37.5–67.6) *	50.0		(34.8–65.3) *
Race/Ethnicity **						
white	61.7	61.1	(56.8–65.4)	72.1	70.8	(66.9–74.7)
black	†	†	--	†	†	--
hispanic	35.2	42.4	(29.7–55.2)	44.2	52.9	(41.2–64.5)
asian	†	†	--	†	†	--
Education						
< high school	44.0	41.8	(32.8-50.8)	54.0	51.7	(42.5-61.0)
high school	57.0	55.3	(45.4-65.2)	71.5	68.4	(59.3-77.4)
college 1–3 yrs	62.0	61.3	(52.4-70.1)	71.0	68.8	(60.4-77.3)
college 4+ yrs	64.4	65.0	(59.1-71.0)	73.5	73.5	(68.1-78.9)
Household Income						
<$25,000	49.8	46.9	(36.8-56.9)	59.7	56.9	(47.6-66.2)
$25–34,999	61.3	55.9	(42.2-69.6)	68.2	64.6	(52.8-76.4)
$35–49,999	69.3	67.9	(58.2-77.6)	79.0	77.3	(68.6-85.9)
$50–74,999	60.4	63.0	(51.9-74.1)	71.5	74.7	(64.9-84.6)
$75,000+	62.8	66.1	(55.4-76.8)	75.2	77.3	(68.0-86.6)
Region						
I–Western	47.9	47.2	(36.2-58.3)	54.4	51.6	(41.7-61.6)
II–Central	55.0	52.7	(41.0-64.4)	67.3	66.0	(55.4-76.6)
III–North East	63.2	64.7	(56.0-73.5)	72.0	71.6	(63.3-79.9)
IV–Metro West	60.5	61.5	(52.6-70.4)	72.8	73.2	(65.5-81.0)
V–South East	64.6	61.5	(53.7-69.2)	74.5	72.2	(65.4-79.1)
VI–Boston	52.9	56.8	(44.5-69.0)	69.8	72.9	(61.2-84.5)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

6. Women's Health

Section 6–1: Folic Acid Use and Awareness

All women ages 18-44 were asked whether they took vitamins or supplements containing folic acid daily and if they could identify the reason doctors recommend that women take folic acid. Use of folic acid during pregnancy is known to reduce birth defects known as neural tube defects.

DAILY FOLIC ACID USE (Table 6.1b)

- 42% of Massachusetts women age 18 - 44 reported taking folic acid daily
- Women ages 18-24 were less likely to take folic acid daily than women ages 25-44
- Women with lower levels of education and income were less likely to take folic acid daily
- Daily folic acid use increased with increasing consumption of fruits and vegetables (Figure 6.1a)

FOLIC ACID KNOWLEDGE (Table 6.1b)

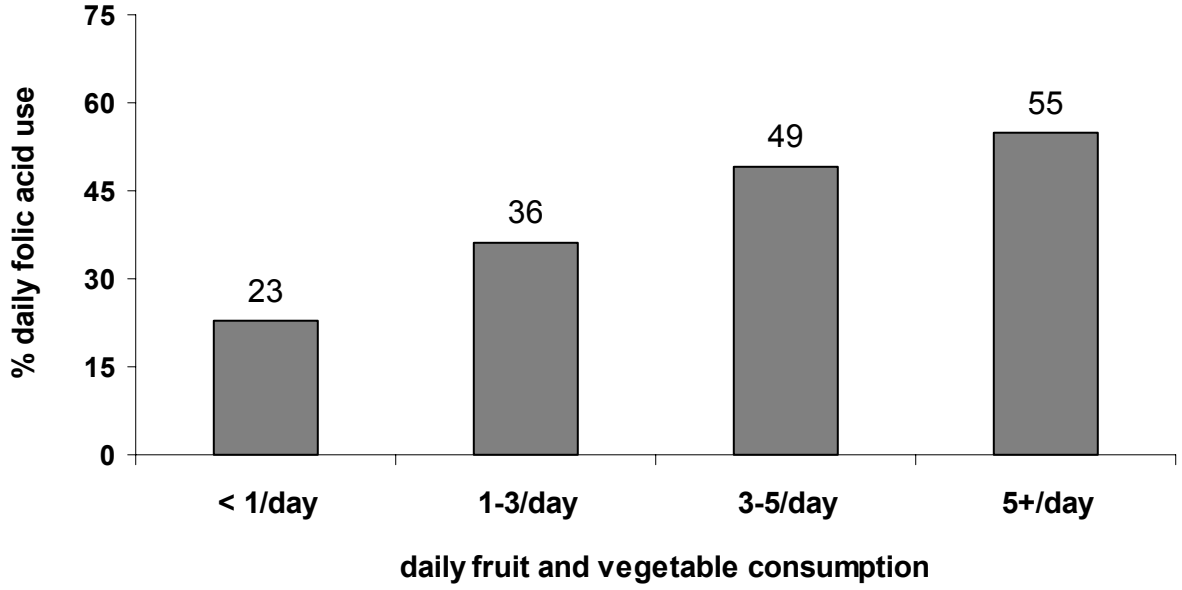
- 55% of Massachusetts women ages 18 to 44 knew the reason daily folic acid use is recommended
- Women ages 18-24 were less likely to know why daily folic acid use is recommended compared to women ages 25-44
- The percentage of women ages 18-44 who knew why daily folic acid use is recommended increased with increasing education and income
- Knowledge of the reason folic acid is recommended ranged from 28% among Hispanic women to 63% among White women (Figure 6.1b)

TABLE 6.1a - FOLIC ACID
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	DAILY FOLIC ACID USE	FOLIC ACID KNOWLEDGE
Massachusetts (%)	42.2	54.6
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

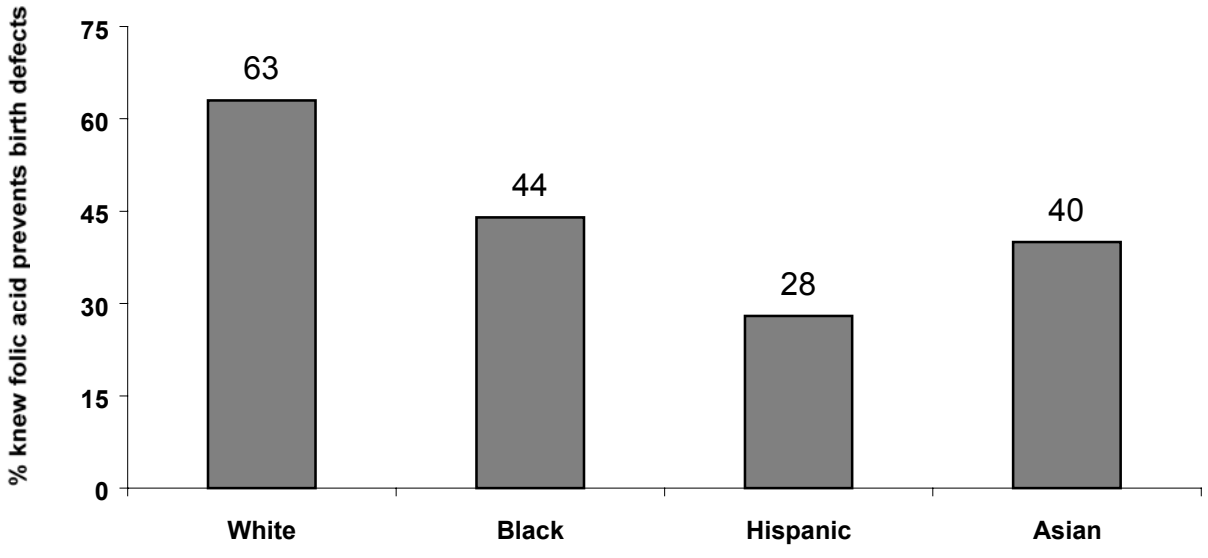
* No applicable objective.

Figure 6.1a: Percentage of women, ages 18 to 44, who take folic acid daily, by fruit/vegetable consumption



Source: MA BRFSS, 2000

Figure 6.1b: Percentage of women, ages 18 to 44, who knew folic acid is recommended to prevent birth defects, by race/ethnicity



Source: MA BRFSS, 2000

Table 6.1b - Folic Acid Use and Awareness among Massachusetts Women ages 18-44, 2000

	Daily Folic Acid Use			Folic Acid Knowledge		
	Crude %	Age–Adjusted %	95% CI	Crude %	Age–Adjusted %	95% CI
Overall	42.2	42.5	(39.6–45.3)	54.6	55.1	(52.1–58.1)
Gender						
male						
female	42.2	42.5	(39.6–45.3)	54.6	55.1	(52.1–58.1)
Age Group						
18–24	35.0		(28.4–41.7) *	35.8		(28.7–43.0) *
25–34	44.1		(39.7–48.5) *	61.6		(57.1–66.2) *
35–44	45.5		(41.2–49.9) *	61.0		(56.4–65.6) *
Race/Ethnicity **						
white	45.1	45.2	(41.9-48.5)	61.0	60.9	(57.5-64.3)
black	35.2	34.9	(23.6-46.2)	41.5	41.8	(30.1-53.6)
hispanic	28.8	31.6	(23.7-39.4)	26.7	27.3	(19.6-35.0)
asian	32.2	34.6	(16.4-52.9)	†	†	--
Education						
< high school	23.8	26.1	(15.6-36.6)	18.4	17.0	(7.6-26.3)
high school	37.9	38.9	(32.9-44.8)	40.4	40.7	(34.2-47.2)
college 1–3 yrs	44.2	45.1	(39.8-50.3)	54.6	57.0	(51.7-62.4)
college 4+ yrs	46.1	46.0	(41.5-50.6)	67.9	66.7	(62.0-71.4)
Household Income						
<$25,000	30.2	31.5	(25.4-37.7)	32.0	33.1	(26.5-39.6)
$25–34,999	48.5	46.4	(37.8-55.1)	55.0	54.2	(44.8-63.7)
$35–49,999	46.4	46.4	(39.1-53.8)	57.3	57.3	(49.2-65.4)
$50–74,999	47.3	47.2	(40.1-54.2)	66.9	64.1	(57.0-71.1)
$75,000+	49.3	47.3	(39.7-54.8)	72.4	68.3	(60.4-76.3)
Region						
I–Western	42.4	41.1	(33.5-48.7)	46.1	48.8	(40.6-57.1)
II–Central	48.6	48.5	(40.5-56.5)	62.2	61.9	(53.6-70.2)
III–North East	38.6	39.1	(33.3-45.0)	55.0	55.8	(49.4-62.2)
IV–Metro West	42.2	41.7	(35.0-48.3)	61.5	59.1	(51.7-66.4)
V–South East	49.1	48.9	(41.7-56.0)	56.4	56.1	(48.4-63.8)
VI–Boston	33.4	35.0	(28.6-41.4)	44.8	45.8	(38.9-52.6)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 6–2: Family Planning

All women ages 18-44 who were currently pregnant or had been pregnant in the last five years were asked if they wanted to be pregnant sooner, later, or not at all. Unplanned pregnancy was defined as wanting to be pregnant later or not at all. Women who had not had a hysterectomy and were not currently pregnant were also asked what type of birth control they were currently using.

UNPLANNED PREGNANCY (Table 6.2a)

- 29% of Massachusetts women ages 18-44 reported having an unplanned pregnancy in the past five years
- The percentage of women ages 18-44 who had an unplanned pregnancy in the past five years decreased with increasing age
- Hispanic women were more likely than White women to have had an unplanned pregnancy in the past five years
- The percentage of women ages 18-44 who had an unplanned pregnancy in the past five years decreased with increasing education and income
- Among selected cities, the percentage of women ages 18-44 who had an unplanned pregnancy in the past five years ranged from 32% in Worcester to 59% in Springfield (Figure 6.2a)

USE BIRTH CONTROL (Table 6.2b)

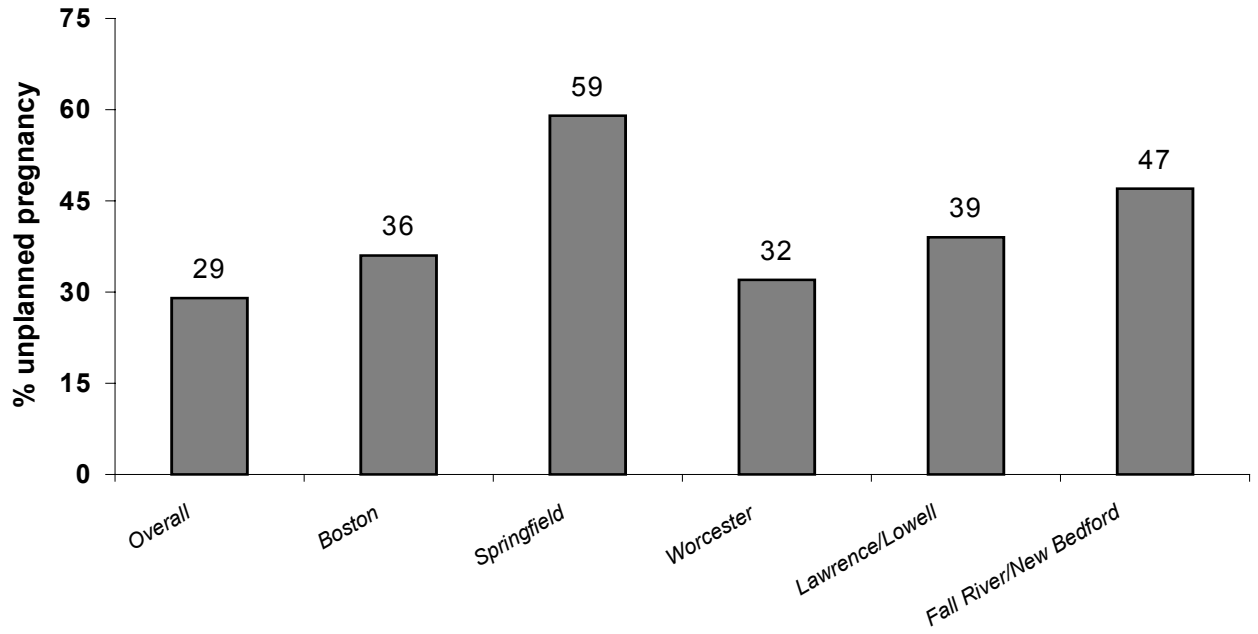
- 78% of Massachusetts women ages 18-44 reported using birth control
- The percentage of women ages 18-44 who used birth control decreased with increasing age
- White women were more likely to use birth control than women of all other racial/ethnic groups
- Women ages 18-44 with a high school education or less were less likely to use birth control than women with higher levels of education
- 14% of Massachusetts women cited inability to pay for birth control as the main factor for not using birth control (Figure 6.2b)

TABLE 6.2a - FAMILY PLANNING
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	UNPLANNED PREGNANCY	USE BIRTH CONTROL
Massachusetts (%)	28.6	78.2
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

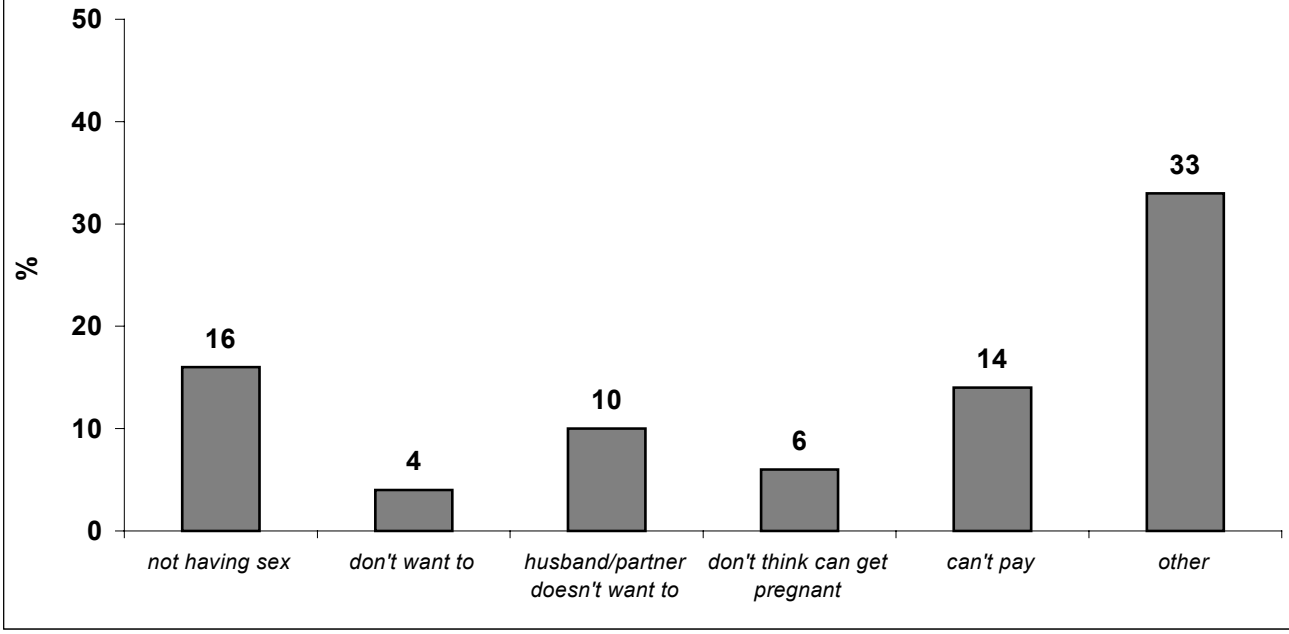
* No applicable objective.

Figure 6.2a: Percentage of women, ages 18-44, who had an unplanned pregnancy in the past 5 years, by city



Source: MA BRFSS, 1998 & 2000

Figure 6.2b: Reasons for not using birth control, among women ages 18-44 who are not trying to get pregnant*



* Among women without a hysterectomy who were not currently pregnant.

Source: MA BRFSS 2000

Table 6.2b - Family Planning among Massachusetts Women ages 18-44, 2000						
	Unplanned Pregnancy			Use Birth Control*		
	crude %	Age–Adjusted %	95% CI	crude %	Age–Adjusted %	95% CI
Overall	28.6	29.8	(26.0–33.7)	78.2	78.2	(75.9–80.5)
Gender						
male						
female	28.6	29.8	(26.0–33.7)	78.2	78.2	(75.9–80.5)
Age Group						
18–24	55.5		(44.2–66.9) **	84.9		(79.8–90.0) **
25–34	25.9		(21.0–30.9) **	79.5		(75.8–83.3) **
35–44	18.0		(13.0–22.9) **	73.2		(69.5–76.8) **
Race/Ethnicity ***						
white	25.1	28.6	(24.0-33.3)	80.7	81.2	(78.7-83.6)
black	33.4	32.6	(18.3-46.9)	67.9	68.0	(57.5-78.5)
hispanic	45.7	48.8	(37.3-60.2)	66.2	67.1	(59.3-74.9)
asian	†	†	--	†	†	--
Education						
< high school	39.7	35.7	(21.5-50.0)	56.2	53.4	(41.5-65.2)
high school	37.7	34.5	(26.5-42.5)	73.8	74.1	(69.1-79.1)
college 1–3 yrs	26.9	29.9	(22.0-37.8)	81.9	80.8	(76.9-84.8)
college 4+ yrs	22.4	27.0	(18.8-35.2)	81.6	82.4	(79.1-85.6)
Household Income						
<$25,000	52.4	50.5	(39.0-61.9)	78.0	72.4	(66.3-78.5)
$25–34,999	42.6	43.9	(28.6-59.1)	82.7	80.7	(74.0-87.4)
$35–49,999	39.1	39.2	(27.6-50.8)	78.7	79.1	(73.1-85.0)
$50–74,999	19.0	21.1	(7.9-34.4)	82.2	83.4	(78.9-88.0)
$75,000+	13.6	24.5	(11.5-37.4)	79.3	82.9	(79.3-86.6)
Region						
I–Western	33.7	32.0	(22.7-41.2)	78.9	79.8	(74.1-85.5)
II–Central	29.8	28.2	(18.9-37.6)	79.0	80.3	(74.9-85.8)
III–North East	32.3	32.3	(24.0-40.7)	75.2	75.2	(68.9-81.5)
IV–Metro West	17.2	23.0	(12.7-33.3)	77.4	78.6	(73.4-83.8)
V–South East	27.4	28.3	(19.0-37.6)	78.2	77.9	(72.3-83.4)
VI–Boston	41.4	42.3	(30.6-54.0)	81.4	77.8	(72.3-83.2)

* Among women without a hysterectomy who were not currently pregnant.

** Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

*** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

Section 6–3: Calcium Intake and Osteoporosis

All women were asked about their daily calcium consumption. Sufficient calcium intake was defined as consuming three or more servings of dairy products per day or consuming 1-2 servings of dairy products per day plus regularly taking a calcium supplement. Women ages 45 and older were asked if they had ever been told that they had osteoporosis.

SUFFICIENT CALCIUM INTAKE, WOMEN (Table 6.3b)

- 36% of Massachusetts women reported consuming sufficient calcium daily
- The percentage of women who consume sufficient calcium daily increased with increasing age until age 74, then decreased
- White women were more likely to consume sufficient calcium daily than women in other racial/ethnic groups
- The percentage of women who consume sufficient calcium daily increased with increasing education
- Women with the lowest household income were less likely to consume sufficient calcium daily than women with higher household income
- The percentage of women who consume sufficient calcium through diet decreased with increasing age (Figure 6.3a)

OSTEOPOROSIS, WOMEN AGES 45 AND OLDER (Table 6.3b)

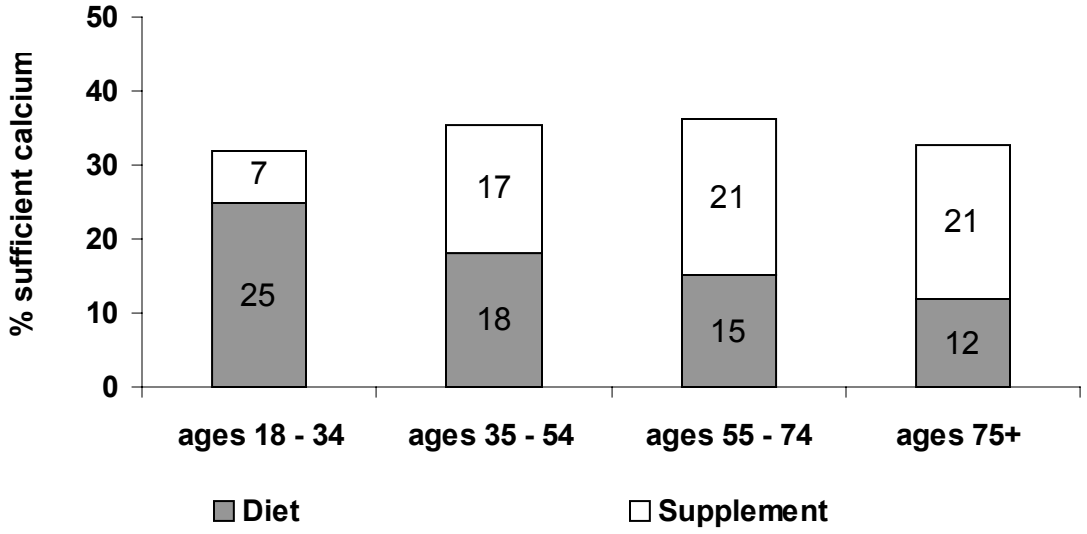
- 16% of women ages 45 and older had been told they had osteoporosis
- The percentage of women ages 45 and older who had osteoporosis increased with increasing age until age 74, then decreased
- The percentage of women ages 45 and older who do strength-building exercises at least once a week did not differ by osteoporosis status (Figure 6.3b)

TABLE 6.3a - OSTEOPOROSIS
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	SUFFICIENT CALCIUM	OSTEOPOROSIS (AGES 45+)
Massachusetts (%)	36.0	15.9
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

* No applicable objective.

Figure 6.3a: Percentage of women who attain sufficient calcium through diet and supplementation, by age.



Source: MA BRFSS, 2000

Figure 6.3b: Percentage of women, ages 45 and older, who do strength-building exercises at least once a week, by osteoporosis status

Source: MA BRFSS, 2000

Table 6.3b – Calcium Intake and Osteoporosis among Massachusetts Women, 2000

	Sufficient Calcium, all women			Osteoporosis Age Women ages 45+		
	Crude %	Age–Adjusted %	95% CI	Crude %	Age–Adjusted %	95% CI
Overall	36.0	35.6	(33.7–37.5)	15.9	14.9	(13.0–16.8)
Gender						
male						
female	36.0	35.6	(33.7–37.5)	15.9	14.9	(13.0–16.8)
Age Group						
18–24	29.3		(22.9–35.8) *			
25–34	32.9		(28.8–37.1) *			
35–44	32.2		(28.2–36.1) *			
45–54	39.3		(34.5–44.1) *	6.8		(4.5–9.2) *
55–64	39.0		(33.5–44.5) *	15.1		(11.2–19.1) *
65–74	44.3		(38.2–50.5) *	24.8		(19.4–30.2) *
75 and older	37.1		(30.7–43.4) *	21.7		(16.3–27.0) *
Race/Ethnicity **						
white	36.8	36.0	(33.8-38.1)	15.8	14.4	(12.4-16.4)
black	27.0	27.5	(20.2-34.7)	13.9	12.5	(4.2-20.7)
hispanic	32.7	32.0	(25.7-38.2)	19.4	19.0	(11.6-26.4)
asian	29.8	33.2	(19.8-46.7)	†	†	--
Education						
< high school	31.1	30.9	(24.0-37.8)	19.3	20.1	(12.4-27.8)
high school	34.7	33.5	(29.6-37.3)	15.1	13.2	(10.0-16.4)
college 1–3 yrs	35.8	36.2	(32.5-39.9)	18.3	16.7	(12.8-20.6)
college 4+ yrs	38.5	38.6	(35.3-41.9)	13.9	15.9	(11.9-19.8)
Household Income						
<$25,000	29.9	28.7	(24.9-32.5)	21.7	19.8	(14.6-25.0)
$25–34,999	37.5	36.3	(30.7-41.8)	21.2	18.7	(12.1-25.4)
$35–49,999	41.0	41.2	(35.9-46.5)	12.7	14.6	(8.7-20.4)
$50–74,999	35.2	36.3	(30.4-42.2)	7.6	8.4	(3.3-13.5)
$75,000+	37.4	37.1	(31.3-42.8)	9.0	14.3	(6.4-22.2)
Region						
I–Western	35.6	35.1	(30.3-39.9)	11.5	11.9	(8.1-15.8)
II–Central	36.9	36.8	(31.4-42.3)	21.0	21.0	(14.3-27.6)
III–North East	34.7	34.5	(30.0-38.9)	19.7	17.5	(13.1-22.0)
IV–Metro West	35.6	34.6	(30.3-39.0)	14.8	13.1	(9.4-16.9)
V–South East	38.8	38.4	(33.6-43.2)	14.2	13.3	(8.9-17.6)
VI–Boston	33.9	35.8	(31.0-40.6)	15.5	15.4	(9.8-21.0)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

† Insufficient numbers

7. Other Topics

Section 7–1: HIV Testing

Respondents ages 18-64 were asked whether or not they had ever been tested for human immunodeficiency virus (HIV), the virus that causes AIDS. Those who reported having been tested were asked if they had been tested for HIV within the past year.

TESTED FOR HIV IN PAST YEAR (Table 7.1b)

- 15% of Massachusetts adults reported being tested for HIV in the past year
- Men were more likely than women to have been tested for HIV in the past year
- The percentage of adults who were tested for HIV in the past year decreased with increasing age
- Black and Hispanic adults were more likely to have been tested for HIV in the past year than other racial/ethnic groups
- Adults with the lowest levels of education and income were more likely to have been tested for HIV in the past year than adults with higher levels of education and income
- Individuals who described their HIV risk as medium to high were more likely to have been tested for HIV in the past year compared to those with low or no risk (Figure 7.1a)
- Among women ages 18-44, pregnant women were more likely to have been tested for HIV in the past year compared to women who were not pregnant (Figure 7.1b)

EVER TESTED FOR HIV (Table 7.1b)

- 48% of Massachusetts adults reported ever having been tested for HIV
- Adults ages 45-64 were less likely to have ever been tested for HIV than adults ages 18-44
- Black and Hispanic adults were more likely to have ever been tested for HIV than adults in other racial/ethnic groups
- Adults with the lowest education or income were more likely than those with higher education or income to have ever been tested for HIV

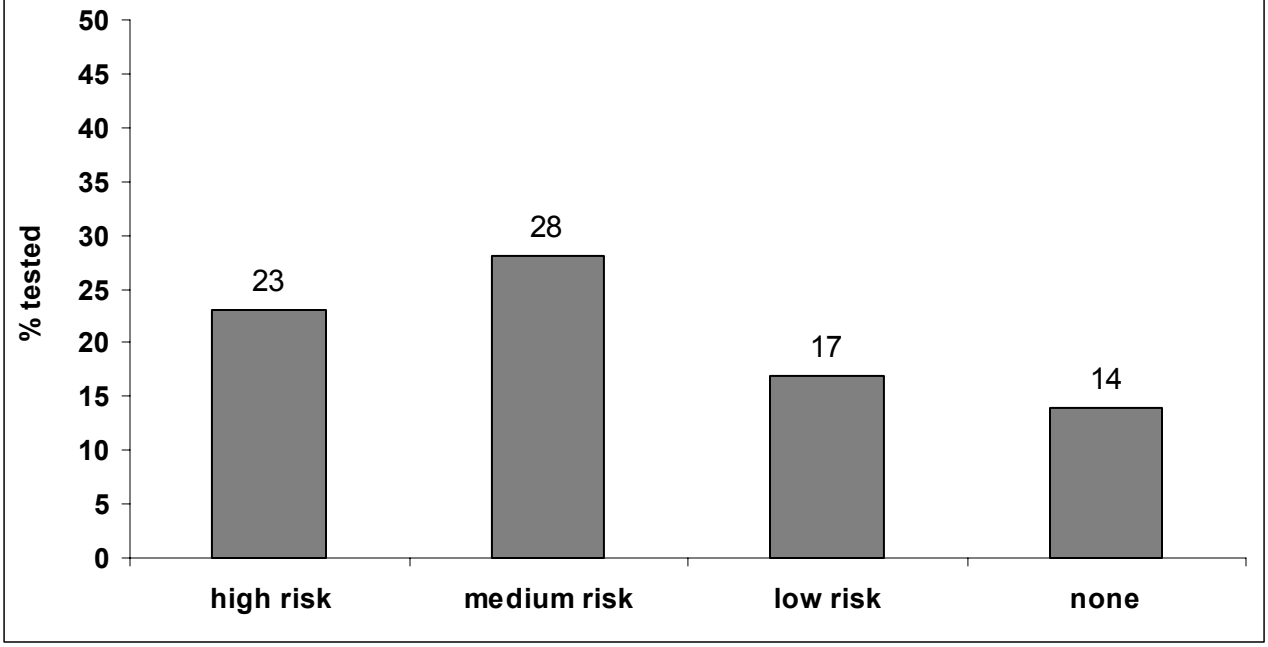
TABLE 7.1a – HIV TESTING
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	EVER TESTED FOR HIV
Massachusetts (%)	47.8
US Median (%)	46.7
Range of US States (%)	28.8 – 69.4
Massachusetts Rank	23rd *
Healthy People 2010	**

* 1st = highest percentage of adults ages 18 – 64 ever tested for HIV, 52nd = lowest percentage of adults ages 18-64 ever tested for HIV.

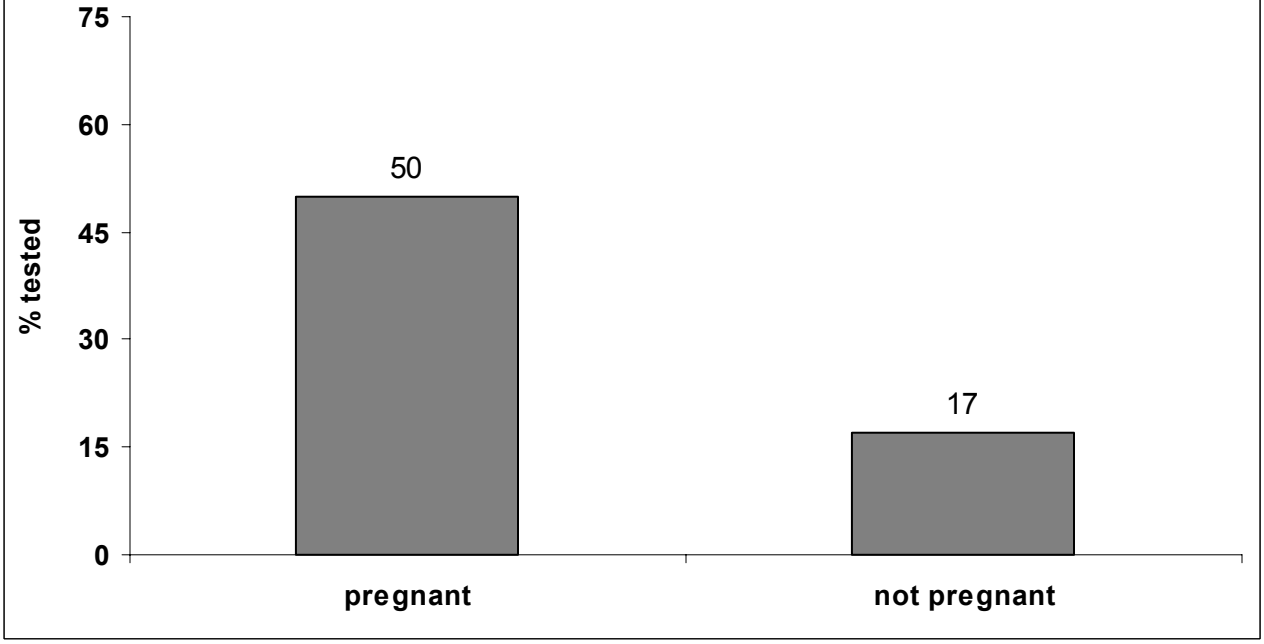
** No applicable objective.

Figure 7.1a: Percentage of adults, ages 18 to 64, who were tested for HIV in the past year, by HIV risk status



Source: MA BRFSS, 2000

Figure 7.1b: Percentage of women, ages 18 to 44, who were tested for HIV in the past year, by pregnancy status



Source: MA BRFSS, 2000

Table 7.1b – HIV Testing among Massachusetts Adults ages 18 to 64, 2000

	Tested for HIV in Past Year			Ever Tested for HIV		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	15.4	15.3	(14.2-16.4)	47.8	47.7	(46.2-49.2)
Gender						
Male	16.9	16.7	(15.0-18.4)	49.2	49.0	(46.7-51.3)
Female	14.0	14.0	(12.7-15.3)	46.5	46.6	(44.8-48.4)
Age Group						
18–24	23.3		(19.5–27.2) *	42.2		(37.6–46.8) *
25–34	20.8		(18.3–23.3) *	65.1		(62.4–67.9) *
35–44	14.0		(12.2–15.8) *	54.2		(51.5–56.9) *
45–54	10.8		(8.8–12.9) *	38.1		(35.1–41.2) *
55–64	7.2		(5.2–9.2) *	29.4		(25.6–33.1) *
Race/Ethnicity **						
White	14.0	14.2	(13.0-15.4)	46.1	46.3	(44.6-47.9)
Black	24.4	23.3	(18.1-28.5)	60.1	59.9	(53.8-66.0)
Hispanic	24.3	21.4	(17.9-25.0)	60.7	59.4	(54.6-64.2)
Asian	15.2	9.9	(6.5-13.4)	40.0	38.6	(28.3-48.9)
Education						
< High School	24.8	24.3	(19.8-28.8)	55.1	56.5	(51.3-61.8)
High School	14.7	15.1	(12.9-17.3)	44.6	46.0	(43.1-49.0)
College 1–3 yrs	17.0	16.3	(14.2-18.4)	49.2	49.8	(46.9-52.6)
College 4+ yrs	12.9	12.8	(11.2-14.4)	47.5	45.8	(43.4-48.1)
Household Income						
<$25,000	18.8	18.3	(15.5-21.2)	53.9	56.6	(52.8-60.4)
$25–34,999	14.8	13.4	(10.6-16.3)	48.6	47.9	(43.4-52.4)
$35–49,999	14.7	14.7	(11.9-17.4)	49.9	49.1	(45.4-52.8)
$50–74,999	14.1	13.7	(11.2-16.2)	46.7	45.0	(41.6-48.5)
$75,000+	14.0	14.5	(12.1-17.0)	47.8	46.8	(43.6-50.0)
Region						
I–Western	19.3	19.0	(16.0-22.1)	50.9	51.5	(47.7-55.4)
II–Central	13.9	13.9	(11.2-16.7)	47.4	46.6	(42.8-50.5)
III–North East	14.8	14.7	(12.1-17.2)	46.7	46.4	(43.0-49.8)
IV–Metro West	12.9	12.9	(10.5-15.2)	44.6	44.1	(40.8-47.4)
V–South East	14.6	15.4	(12.8-18.0)	47.2	48.8	(45.3-52.2)
VI–Boston	19.2	17.5	(14.9-20.1)	53.1	52.2	(48.5-55.9)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 7–2: Needle Exchange/Condom Distribution

All respondents were asked if they supported having condoms made available to high school students through the schools nurses' offices or health clinics. Respondents were also asked if they supported programs that allow injection drug users to exchange their used needles and syringes for clean ones.

SUPPORT FOR CONDOM DISTRIBUTION IN HIGH SCHOOLS (Table 7.2b)

- 76% of Massachusetts adults supported condom distribution in high schools
- Women were more likely than men to support condom distribution in high schools
- The percentage of adults who supported condom distribution in high schools decreased with increasing age (Figure 7.2a)
- The percentage of adults who supported condom distribution in high schools was consistent across levels of education and income

SUPPORT FOR NEEDLE EXCHANGE (Table 7.2b)

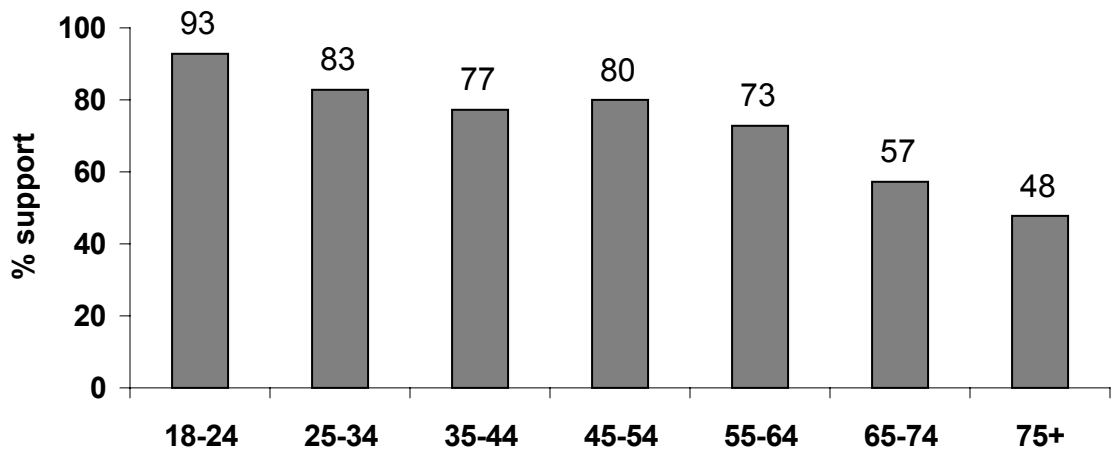
- 62% of Massachusetts adults supported needle exchange programs
- Women were more likely than men to support needle exchange programs
- Adults ages 65 and older were less likely to support needle exchange programs than adults ages 18-64
- White adults were more likely to support needle exchange programs than adults of other racial/ethnic groups
- The percentage of adults who supported needle exchange programs increased with increasing levels of education
- The percentage of adults who supported needle exchange programs ranged from 54% in the Central region to 69% in the MetroWest region (Figure 7.2b)

TABLE 7.2a - NEEDLE EXCHANGE/CONDOM DISTRIBUTION HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	SUPPORT FOR CONDOM DISTRIBUTION IN HIGH	SUPPORT FOR NEEDLE EXCHANGE
Massachusetts (%)	75.8	62.1
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

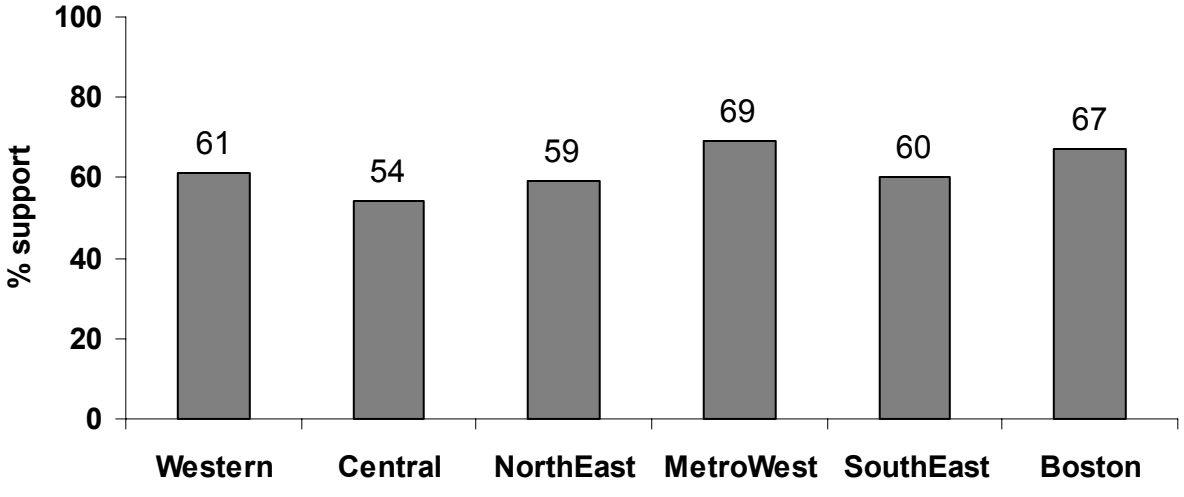
* No applicable objective.

Figure 7.2a: Percentage of adults who support condom availability in high schools, by age



Source: MA BRFSS, 2000

Figure 7.2b: Percentage of adults who support needle exchange programs, by region



Source: MA BRFSS, 2000

Table 7.2b - Needle Exchange/Condom Distribution among Massachusetts Adults, 2000

	Support for Condom Distribution in High Schools			Support for Needle Exchange		
	Crude %	Age–Adjusted %	95% CI	Crude %	Age–Adjusted %	95% CI
Overall	75.8	76.2	(74.9–77.4)	62.1	62.4	(60.9–63.9)
Gender						
male	75.0	74.3	(72.3-76.3)	60.1	59.7	(57.3–62.1)
female	76.6	77.8	(76.2-79.4)	64.0	64.8	(62.9–66.7)
Age Group						
18–24	92.7		(90.0–95.3) *	59.7		(54.5–65.0) *
25–34	83.4		(80.8–86.1) *	64.6		(61.3–67.9) *
35–44	77.2		(74.4–80.0) *	64.6		(61.5–67.7) *
45–54	79.6		(76.5–82.6) *	68.3		(64.8–71.7) *
55–64	72.8		(68.8–76.7) *	64.9		(60.5–69.2) *
65–74	57.4		(52.6–62.1) *	54.7		(50.0–59.5) *
75 and older	47.5		(42.1–53.0) *	46.3		(40.8–51.8) *
Race/Ethnicity **						
white	75.7	76.9	(75.5-78.2)	63.6	64.3	(62.6-65.9)
black	77.4	76.1	(70.3-81.9)	55.2	53.7	(46.8-60.7)
hispanic	78.0	72.5	(67.7-77.4)	52.4	52.2	(46.5-58.0)
asian	72.3	75.2	(66.2-84.1)	53.2	63.4	(53.7-73.2)
Education						
< high school	75.8	77.4	(73.4-81.4)	48.0	48.6	(43.3-53.8)
high school	71.8	74.1	(71.6-76.6)	52.8	53.7	(50.6-56.9)
college 1–3 yrs	78.0	76.8	(74.4-79.3)	63.6	63.2	(60.2-66.1)
college 4+ yrs	77.3	77.1	(75.0-79.2)	71.4	71.1	(68.7-73.6)
Household Income						
<$25,000	75.1	78.6	(75.9-81.4)	55.6	59.4	(55.8-62.9)
$25–34,999	72.6	74.4	(70.3-78.4)	59.0	59.4	(54.8-64.0)
$35–49,999	76.6	76.1	(72.5-79.6)	63.2	63.2	(59.1-67.2)
$50–74,999	78.4	76.1	(72.5-79.6)	66.2	65.8	(61.7-69.9)
$75,000+	79.8	79.6	(76.4-82.8)	71.0	71.5	(67.8-75.1)
Region						
I–Western	78.9	79.1	(76.0-82.1)	61.3	61.3	(57.4-65.1)
II–Central	71.4	72.3	(68.5-76.0)	53.6	53.5	(49.1-57.8)
III–North East	75.2	75.2	(72.4-78.1)	59.1	59.2	(55.7-62.7)
IV–Metro West	76.0	76.9	(74.1-79.8)	69.4	69.5	(66.1-72.8)
V–South East	72.4	74.2	(71.3-77.1)	59.7	60.2	(56.6-63.7)
VI–Boston	83.1	80.6	(77.3-83.9)	67.3	67.3	(63.5-71.1)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

Section 7–3: Sexual Assault

All respondents ages 18-59 were asked questions about sexual contact against their will. Sexual assault was defined as any unwanted sexual contact.

EVER SEXUALLY ASSAULTED, WOMEN (Table 7.3b)

- 23% of Massachusetts women reported having been sexually assaulted
- Asian women were less likely to report having been sexually assaulted than women in other racial/ethnic groups
- Women from lower income households were more likely than women from higher income households to report having been sexually assaulted
- Women with disabilities were more likely to report having been sexually assaulted compared to women without disabilities; women with disabilities who needed help were the most likely to report having been sexually assaulted (Figure 7.3a)

EVER SEXUALLY ASSAULTED, MEN (Table 7.3b)

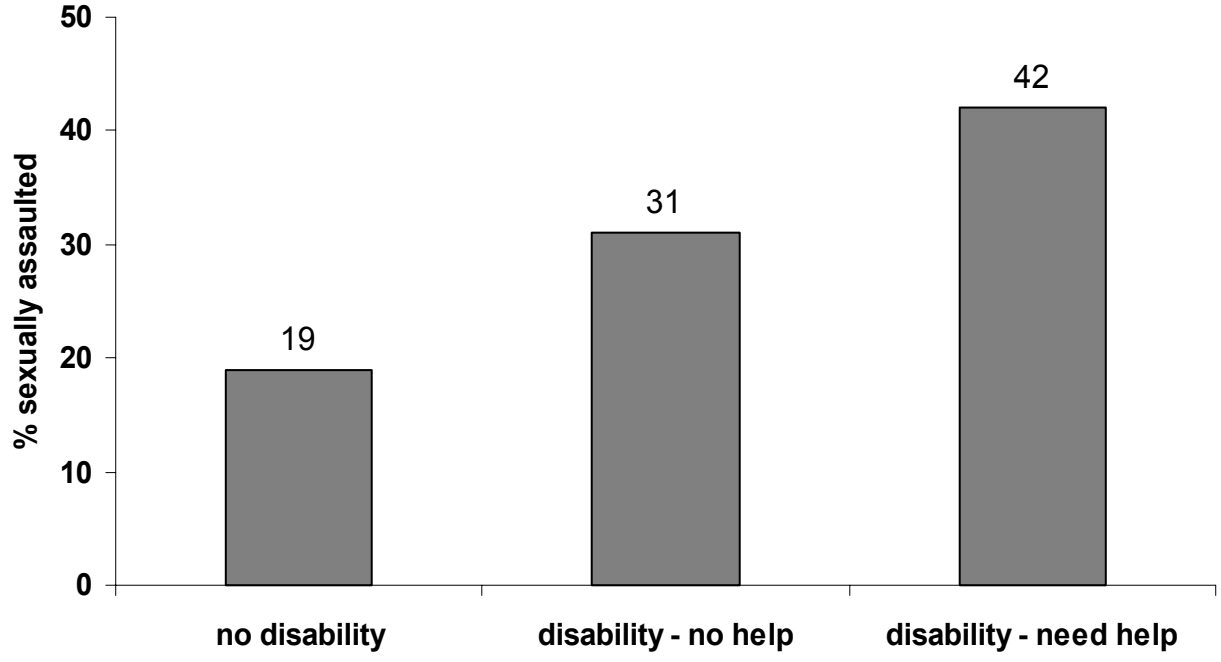
- 6% of Massachusetts men reported having been sexually assaulted
- The percentage of men who had been sexually assaulted did not differ by age or race/ethnicity
- Men with disabilities were more likely to report having been sexually assaulted compared to men without disabilities (Figure 7.3b)

TABLE 7.3a - SEXUAL ASSAULT
HEALTHY PEOPLE 2010 AND U.S. COMPARISONS

	EVER SEXUALLY ASSAULTED (WOMEN)	EVER SEXUALLY ASSAULTED (MEN)
Massachusetts (%)	22.9	6.3
US Median (%)	NA	NA
Range of US States (%)	NA	NA
Massachusetts Rank	NA	NA
Healthy People 2010	*	*

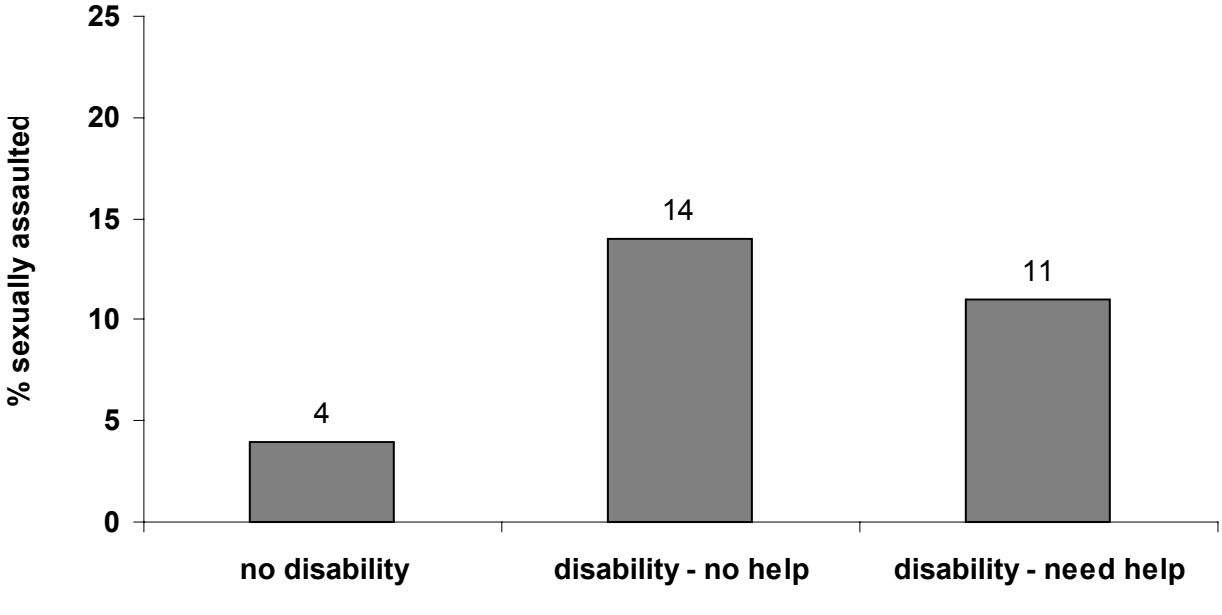
* No applicable objective.

Figure 7.3a: Percentage of women, ages 18-59, who were ever sexually assaulted, by disability status



Source: MA BRFSS, 2000

Figure 7.3b: Percentage of men, ages 18-59, who were ever sexually assaulted, by disability status



Source: MA BRFSS, 2000

Table 7.3b - Sexual Assault among Massachusetts Adults ages 18-59, 2000

	Ever Sexually Assaulted, Women			Ever Sexually Assaulted, Men		
	Crude	Age–Adjusted		Crude	Age–Adjusted	
	%	%	95% CI	%	%	95% CI
Overall	22.9	22.9	(21.2–24.7)	6.3	6.3	(5.1–7.4)
Gender						
male				6.3	6.3	(5.1–7.4)
female	22.9	22.9	(21.2–24.7)			
Age Group						
18–29	23.7		(19.9–27.5) *	6.9		(4.2–9.7) *
30–39	24.3		(21.1–27.5) *	5.5		(3.7–7.2) *
40–49	22.3		(19.2–25.5) *	5.7		(3.8–7.6) *
50–59	20.7		(17.0–24.4) *	7.1		(4.4–9.8) *
Race/Ethnicity **						
white	24.2	24.3	(22.3-26.3)	6.3	6.4	(5.0-7.7)
black	22.4	22.7	(16.0-29.5)	5.3	5.0	(1.2-8.8)
hispanic	17.0	16.7	(12.2-21.3)	5.2	4.8	(1.4-8.2)
asian	7.6	4.7	(0.9-8.6)	4.3	5.7	(0.2-11.2)
Education						
< high school	21.8	21.1	(14.4-27.8)	6.5	6.0	(1.9-10.0)
high school	17.4	17.5	(14.3-20.7)	3.5	3.6	(2.1-5.0)
college 1–3 yrs	24.2	23.8	(20.4-27.2)	9.1	9.3	(6.6-12.1)
college 4+ yrs	25.6	25.5	(22.8-28.2)	6.4	6.5	(4.4-8.6)
Household Income						
<$25,000	33.0	32.2	(27.5-36.8)	8.1	8.4	(5.0-11.7)
$25–34,999	24.4	24.8	(19.8-29.8)	4.1	4.0	(1.7-6.3)
$35–49,999	22.9	22.7	(18.3-27.1)	8.2	8.3	(4.9-11.6)
$50–74,999	21.5	21.8	(17.6-25.9)	7.7	7.1	(4.6-9.6)
$75,000+	22.4	21.3	(17.7-24.9)	4.9	5.6	(2.8-8.3)
Region						
I–Western	27.4	27.0	(22.1-31.9)	8.4	8.8	(5.1-12.5)
II–Central	23.8	23.4	(18.8-28.1)	6.0	6.4	(3.3-9.4)
III–North East	19.2	19.2	(15.6-22.8)	5.1	5.2	(2.9-7.4)
IV–Metro West	25.6	25.3	(21.2-29.3)	6.5	6.5	(3.7-9.2)
V–South East	21.7	22.0	(17.8-26.3)	5.1	4.9	(2.7-7.0)
VI–Boston	20.7	19.7	(16.2-23.2)	7.0	6.9	(4.2-9.5)

* Confidence interval presented is for the age-specific rate in the previous column. Please note, for a given age group, the crude rate is the same as the age-specific rate.

** White, Black and Asian race categories refer to non-Hispanic.

APPENDIX

SUMMARY OF 2000 BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM RESULTS

VARIABLES	MA %	US MEDIAN¶ %	US RANGE¶ %	MA RANK§	HP 2010† %
Overall Health Measures					
Fair/poor Health	13.5	13.9	9.7 – 32.9	24th	*
15+ Poor mental health days	9.0	8.8	5.5 – 14.3	31st	*
15+ Days depressed	7.5				*
15+ Days pain	6.7				*
Health Care Access and Utilization					
No health insurance	6.8				0.0
Did not see doctor due to cost	6.3	9.9	5.8 – 16.5	4th	*
Dental visit in the past year	75.7				*
6+ teeth missing from disease	18.4				*
Risk Factors and Preventive Behaviors					
Current smoker	19.9	23.3	12.9 – 30.5	9th	12.0
Heavy smoker	2.8	3.1	0.8 – 6.8	20th	*
Quit attempt past year	60.5				75.0
Plan to quit smoking	41.0				*
Live in house where smoking is not allowed	65.6				*
Support ban on smoking in restaurants	60.8				*
Overweight (HP 2010)	52.7	57.2	48.2 – 61.8	4th	*
Obese (HP 2010)	16.7	20.1	14.2 – 25.0	5th	15.0
Any exercise in past month	75.4	73.1	45.9 – 84.5	18th	70.0
Regular physical activity	31.0				*
5+ servings fruit and vegetables per day	30.0	23.1	7.3 – 36.7	4th	*
Flu vaccination in last year among people with chronic disease, ages 18-64	46.9				90.0
Flu vaccination in past year, ages 65 +	65.5				90.0

¶ The US median percentage and range are based on data for all fifty states, the District of Columbia, and Puerto Rico.
§ Based on lowest risk or healthiest behavior: 1st = best, 52nd = worst.
† HP 2010 = Healthy People 2010 Objectives.
* No applicable objective.

SUMMARY OF 2000 BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM RESULTS, CONTINUED

VARIABLES	MA %	US MEDIAN¶ %	US RANGE¶ %	MA RANK§	HP 2010† %
Health Conditions					
Had stroke, ages 45+	3.8				*
Had heart attack, ages 45+	11.6				*
COPD, ages 45+	4.1				*
Asthma	8.5				*
Arthritis	44.6				*
Diabetes	5.8	6.2	3.8–8.6	17th	2.5
With disability or limitation	20.9				*
Disability/limited need help with activities	5.8				*
Cancer Screening					
Mammogram in past 2 years, age 40+	84.2	76.1	66.2 – 87.8	3rd	70.0
CBE in past two years, all women	85.7	79.0	65.9 – 86.8	2nd	*
Pap smear in past 3 years	89.5	86.7	72.7 – 92.1	6th	90.0
Blood stool test in past 2 years, ages 50+	36.2				50.0
Sigmoidoscopy/colonoscopy in past 5 years, ages 50+	38.7				*
PSA Blood test in past year, men ages 50+	59.2				*
DRE in the past year, men ages 50+	69.7				*
Women's Health					
Daily folic acid use	42.2				*
Folic acid knowledge	54.6				*
Unplanned pregnancy	28.6				*
Used birth control	78.2				*
Sufficient calcium intake	36.0				*
Osteoporosis, women ages 45+	15.9				*
Other Topics					
Tested for HIV in past year	15.4				*
Ever tested for HIV	47.8	46.7	28.8–69.4	23rd	*
Support condom distribution	75.8				*
Support needle distribution	62.1				*
Ever sexually assaulted, women	22.9				*
Ever sexually assaulted, men	6.3				*

¶ The US median percentage and range are based on data for all fifty states, the District of Columbia, and Puerto Rico.
§ Based on lowest risk or healthiest behavior: 1st = best, 52nd = worst.
† HP 2010 = Healthy People 2010 Objectives.
* No applicable objective.

BRFSS METHODOLOGY

The BRFSS is a random – digit-dial telephone survey of Massachusetts adults ages 18 and older.

The Massachusetts BRFSS is a random–digit–dial (RDD) telephone survey of non–institutionalized Massachusetts adults residing in households with telephones, and in 2000 was conducted by ORC Macro, Inc. The sampling of the survey population involved a list–assisted, stratified RDD sampling frame, which assures that Massachusetts households with telephone numbers assigned after publication of the current directories, as well as households with deliberately unlisted numbers, are included in the sample in appropriate proportions. This methodology is designed to more efficiently and validly reach all telephone equipped households, and to provide population estimates of health conditions and behaviors. Telephone numbers were randomly selected, and multiple attempts were made to reach each household. To be eligible to participate in the survey, a household had to be occupied by at least one adult aged 18 and older. Institutions, group quarters, and temporary residences lived–in for less than one month per year were ineligible. In order to provide estimates of health at the local level, additional interviews were conducted among adults residing in the following major cities in the Commonwealth: Boston, Fall River, Lawrence, Lowell, New Bedford, Springfield and Worcester.

Once a household was contacted, one adult was randomly selected to complete the interview. No proxy respondents or substitutions were allowed in the event that the selected adult was unwilling or unable to complete the interview for any reason such as language barriers, disability, or lack of availability. In addition to English, the survey was conducted in Spanish and Portuguese. In 2000, 8,149 adults completed the survey; among those determined to be eligible, interviews were completed with 41.2% of the potential respondents. Data were weighted to reflect the probability of selection and differential participation by sex and age. All analyses presented in this report were conducted using SUDAAN and SAS software and are considered estimates for the adult population in Massachusetts. For each estimate in the core section we include a 95% confidence interval in order to assess the variability of the data. Since the survey represents a random sample of the population, and not a complete census, 95% confidence intervals provide a range of values that most likely contain the true percent estimates for the population.

In 2000, 8,149 adults participated in the BRFSS. All data are weighted, and provide population-based estimates of health among Massachusetts adults.

There are some limitations that should be considered when interpreting results from the BRFSS. Households that do not have a telephone do not have the opportunity to participate in the survey. Although only 0.5% of Massachusetts households lack a telephone, almost 4% of households living below poverty lack a phone based on 2000 Census supplemental survey.

Although households were telephoned on repeated occasions, interviewers were not always able to reach the randomly selected adult in the household. In addition, some adults contacted did not agree to participate in the survey. To the degree that respondents who participated in the survey differed significantly from those not included in the survey, bias is present in the results. The weighting of the data partially takes into account this non–response.

All data collected by the BRFSS are based on self–report from the respondents. By its nature, self–reported data may be subject to error for several reasons. An individual may have difficulty remembering events that occurred a long time ago or the frequency of certain behaviors. Some respondents may over-report socially desirable behaviors, while underreporting behaviors they perceive to be less acceptable. Finally, because the BRFSS surveys a randomly selected sample of Massachusetts adults, these results may differ to some extent from another random sample simply due to chance. Despite the limitations described above, the BRFSS is the only survey of health risks and behaviors that represents the general Massachusetts population.

TECHNICAL NOTES

Age-adjustment: Age-adjustment is a form of standardization. It is one tool used to remove the influence of an extraneous variable (a confounder) on the association between an exposure and outcome. For example, we may be interested in assessing whether adults with diabetes are more likely than those without diabetes to have 6 or more teeth missing due to tooth decay or gum disease (outcome). However, we know that in our population, adults with diabetes are older than adults without diabetes and that older adults are also more likely to have teeth missing due to tooth decay or gum disease. Thus, we would like to remove the confounding effect of age, and to understand the underlying association between diabetes and oral health, independent of age. In standardization, we stratify the data by the confounder, and calculate the proportion of people with the outcome within each stratified group, and we do this separately for the exposed and the unexposed group. In the above example, we would stratify the data and calculate the proportion of individuals with 6 or more teeth missing within each level of age, for the diabetes and non-diabetes groups separately. Next, we would select a standard set of weights based on the frequency distribution of the confounder for that population. For example, we could calculate the frequency distribution of age for the total population. Then we apply this standard set of weights to the stratified–specific proportions for both the exposed and the unexposed group, and then compute the weighted average proportion for the exposed and unexposed groups. In essence, standardization breaks the link between the confounder and exposure, and allows us to ask that if the exposed group and unexposed group had the same level of the confounder, what would the association with the outcome be. In the above example, this translates into what is the effect of diabetes on oral health, if people with and without diabetes had the same age distribution.

Age-adjusted rates are used to compare an outcome, such as tooth decay, between two groups of people of different ages, such as adults with and without diabetes.

In the above example, we standardized by age. However, standardization can be used to remove confounding by any extraneous variable such as gender, race, income, health status, etc. Standardization is one of the most intuitive approaches to removing confounding from data. Other commonly used tools include regression modeling and Mantel–Haenszel techniques.

Confidence Interval: The BRFSS surveys a random sample of the Massachusetts adult population and generalizes the results to estimate the true prevalence of disease or behaviors of the entire population. Two successive surveys of the same population may not yield the same estimate of a health behavior, simply due to the random selection process. For example, if we conduct two identical surveys of smoking prevalence at the same time, we may have two different estimates of smoking prevalence, even though the true underlying proportion of smokers in the population is unchanged.

The percent estimate usually provides a good approximation of the underlying truth, although there are a range of values that may be consistent with the data. This range is called a confidence interval. A 95% confidence interval can be considered to be a range of values that has a 95% chance of including the true proportion, given that the data were not biased in any way. The confidence interval describes the precision of an

A 95% confidence interval can be considered a range of values that has a 95% chance of including the true proportion.

observed estimate of the underlying proportion, with a wider interval indicating less certainty about this estimate. The main factor affecting the width of the confidence interval is the number of respondents.

Readers should note that not all values within the confidence interval are equally likely. Values close to the estimate are more likely than values near the end points of the confidence interval. For example, the estimate for the percent of adults in Massachusetts who are current smokers is 20.2%. The 95% confidence interval for this estimate is 19.1–21.2%. However, upon repeated surveys, half of the values would be expected to fall within the range 19.7– 20.6%.

Healthy People 2010 Objectives: *The Healthy People 2010: National Health Promotion and Disease Prevention Objectives* are a national agenda that aim to significantly improve the health of Americans in the decade preceding the year 2010. Developed through an extensive governmental, professional, and public national process, Healthy People 2010 defined two broad national goals: to increase quality and years of healthy life and to eliminate health disparities. These goals were supported by 476 specific objectives that set priorities for public health during the first decade of the 2000's. The objectives were organized into 28 priority areas such as tobacco, overweight, and diabetes. For each objective, a numeric national target for the year 2010 was set. For each health status indicator in this report that has a corresponding Healthy People 2010 Objective, the year 2010 target is shown in the relevant graphs and tables.

Healthy People 2010 seeks to: increase quality and years of healthy life, to reduce health disparities

Median: The median is the middle observation for a set of observations (i.e. the value that divides the frequency distribution into halves). It is also equal to the 50th percentile. For example, the US median represents the point at which half of the states have a higher estimate than the median and half have a lower estimate.

Massachusetts Rank: The Massachusetts rank is an ordering that shows where Massachusetts stands in relation to all of the other states. The lower the ranking (1 being the lowest), the better the state's standing with regards to the particular variable of interest.

KEY LINKS

Health Survey Program: The Health Survey Program is part of the Bureau of Health Statistics, Research and Evaluation at the Massachusetts Department of Public Health. Additional information about the program including other state publications can be found on our website located at http://www.state.ma.us/dph/bhsre/cdsp/brfss/brfss.htm.

MassCHIP: Data on selected variables from the Massachusetts BRFSS are available through the Massachusetts Community Health Information Profile (MassCHIP), an Internet–accessible information service available from the Massachusetts Department of Public Health. Information about how to register as a MassCHIP user is available at: http://masschip.state.ma.us/.

National BRFSS data: There is a national BRFSS website, located on the Centers for Disease Control and Prevention website, which provides information about the BRFSS, includes listings of publications and questionnaires, provides national data on selected variables, and includes links to relevant websites. The national BRFSS website is located at: http://ww.cdc.gov/brfss/. A downloadable document that describes all aspects of the BRFSS and survey methodology is located at http://www.cdc.gov/nccdphp/brfss/pdf/userguide.pdf.

Healthy People 2010 website: The Healthy People Objectives has been coordinated by the U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Information on the health prevention goals, priority areas, measuring progress in the health indicators and other pertinent information can be found on the Healthy People 2010 homepage at: http://www.health.gov/healthypeople/.